

Aligning Teacher Qualifications with the Learning Needs of Nova Scotian Students

Report and Recommendations of the Partners' Working Group (August 2013)

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On behalf of the members of the Partners' Working Group, we are pleased to submit our report to Minister of Education and Early Childhood Development.

Across Nova Scotia, education partners are committed to meeting the needs of students in our classrooms. More and more, we understand the important relationship between quality of instruction and student engagement and achievement.

The research is clear. High quality instruction results when teachers bring high levels of content, pedagogical, and curriculum knowledge to their work with students. As a system we need to support teachers' expertise in each of these areas. Through the efforts of the Partners' Working Group we have been able to take a focused look at teachers' content knowledge and to reach recommendations intended to strengthen the alignment between (1) teachers' academic content backgrounds and the courses they teach and (2) teacher professional learning and the needs of students in Nova Scotian classrooms.

Effective communications and the cultivation of partnerships will be foundations for implementing the ten recommendations proposed by the Partners' Working Group. The members of the Partners' Working Group wish to thank the Deputy Minister for the opportunity to advance student learning and achievement in Nova Scotia.

Tatiana Morren Fraser
Co-Chair

Jodene Dunleavy
Co-Chair

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Introduction

“The classroom of today is very different from the classroom of yesterday...although there have been many changes over time, the teacher has always been and will continue to be the single most important factor in ensuring the quality of education in the classroom. Simply put, effective teachers have a positive impact on student learning.”

—*Report and Recommendations of the Education Professional Development Committee*
(Nova Scotia Department of Education 2009, 3)

Supporting effective teaching in every classroom is one of the four priorities of the Department of Education and Early Childhood Development’s plan for education—*Kids and Learning First* (Nova Scotia 2011). Through this priority, the Nova Scotia Government has committed to improve the match between what teachers are asked to teach and their training, background, and experience.

To advance this priority, the Minister of Education announced the creation of the Partners’ Working Group to

- make recommendations on ways to improve the alignment of teacher academic background with courses taught
- learn about teacher assignment processes in schools
- examine the supply of teachers in certain subject areas
- consider how the Nova Scotia Virtual School operates and how distance education can help in ensuring courses are taught by teachers with related, relevant backgrounds

The Partners’ Working Group was also invited to make recommendations on ways to more effectively align teacher professional learning with the needs of students in Nova Scotia’s classrooms.

In September 2012, the Partners’ Working Group was created with representation from a diverse group of education partners, including principals, school board senior staff, representatives from universities offering Bachelor of Education programs, members of the Nova Scotia Teachers Union staff, representatives from the Nova Scotia Federation of Home and School Associations, and members of the Nova Scotia School Boards Association. Staff from the Department of Education’s policy, program, school board relations, and teacher certification divisions also participated as active members of the working group. A full membership list can be found in Appendix A.

Mandate of the Partners' Working Group

"Nothing is more emotive than education, the quality of our schools, the quality of instruction, and the effect on our children's learning. There are few things as important to the future well-being of our world than the quality of the education our children receive."

—*How the World's Most Improved School Systems Keep Getting Better*
(McKinsey & Company 2010)

In 2007, McKinsey & Company began an important international conversation about student achievement with the publication of their report, *How the World's Best Performing School Systems Come Out on Top*. Based on their research on school districts around the world, McKinsey & Company concluded that the quality of their teaching staff is the most significant variable in student achievement over which school boards have some measure of control. Research suggests that the main driver in the variation of student learning among school systems is the quality of teachers. Therefore, the goal for all systems should be to have high quality teaching in every classroom.

Content knowledge plays an important part in teachers' effectiveness (Darling-Hammond 2000). Content knowledge alone is not enough to ensure effective teaching; teachers must also know how to effectively convey their understanding of content to students for learning. It is this special combination of excellent and challenging content (what teachers teach) and good pedagogy (how teachers teach) that has the most significant effect on student learning (Hill, Rowan, and Ball 2005). Curriculum knowledge is also a key factor in the teachers' effectiveness. A deep understanding of the progression of the curriculum in any subject and the knowledge of how each stage has a unique contribution to learning is critical to high quality teaching and learning.

A significant amount of research has gone into looking at both what teachers need to know and how teacher knowledge is used in the service of effective teaching. Today we know that students taught by teachers with subject-specific training outperform their peers in classes taught by teachers without subject-matter preparation (Darling-Hammond 2000; Goldhaber and Brewer 1996; Hill, Rowan, and Ball 2005).

With a clear understanding of the importance of content knowledge to effective teaching, the Partners' Working Group was tasked with examining the available Nova Scotian data and reviewing the processes and procedures school boards employ when assigning teachers to specific courses. The Partners' Working Group was further tasked with identifying strengths and challenges within the current system and a final set of recommendations to the Minister of Education and Early Childhood Development aimed at

1. strengthening the alignment between teacher academic content background and courses taught and,
2. ensuring that teacher preparation and professional learning are designed to meet the needs of students in Nova Scotia's classrooms and system priorities.

All education partners agreed from the outset that the Partners' Working Group's final recommendations would not impact existing provisions in current provincial or local collective agreements.

The Partners' Working Group met monthly from September 2012 until March 2013. Each month the group considered a wide range of information and engaged in facilitated discussions that allowed members to contribute their unique perspectives on the public education system and to share their knowledge about current practices at the Department of Education and in schools, school boards, and universities.

To develop recommendations for the Minister of Education and Early Childhood Development, the Partners' Working Group

- reviewed relevant data from the 2007 and 2012 provincial audits of teaching assignments, the 2009 *Report and Recommendations of the Education Professional Development Committee*, and the 2012 update to the provincial *Teacher Supply and Demand Report*
- considered findings from international research on the relationship between student achievement and teachers' subject content knowledge
- determined and reported on the factors that may be contributing to areas of misalignment between teacher academic content background and subjects taught in Nova Scotia
- reviewed existing and planned university-based professional development opportunities to address areas of need in the short term
- learned about teacher hiring and assignment processes and practices, including any differences or commonalities in process between school boards in Nova Scotia
- reviewed the data on the prevalence of multiple teaching assignments in Nova Scotian schools
- reviewed information about the Nova Scotia Virtual School
- considered research on the relationship between teacher professional learning and effective instructional practice
- gathered and discussed information about teacher professional learning in Nova Scotia, including the various kinds of professional development in which teachers engage
- reviewed relevant legislative and regulatory provisions related to the endorsement of teachers for employment in elementary or secondary schools and/or specific subject areas and requirements for professional learning

The Nova Scotian Context

Alignment between Courses Taught and Teacher Academic Content Background

According to the *Nova Scotia Public Education Teacher Supply and Demand: Update Report* (Nova Scotia Department of Education 2012), the new supply of teachers (i.e., qualified new entrants in Nova Scotian public education who are likely to seek teaching positions in the province) is estimated to average 930 per year through to 2017–18. Assuming this supply will continue in future years, there will be a significantly more than adequate overall supply of teachers in Nova Scotia. However, some rural and other geographical areas across the province may experience difficulties in attracting teachers, especially in specific subjects and specialties.

Data presented in the 2012 report by subject area showed surpluses in biology, English, and social studies, and smaller surpluses in business education, chemistry, fine arts, mathematics, music, and physics. If this trend continues, a future shortage in these subjects is not anticipated, although the market is tight for family studies, French, physical education, physics, and technology education.

Since 2005, all certified teachers receive an endorsement to teach in specific levels (elementary or secondary) and subject areas (e.g., a teacher with a major in chemistry and a minor in biology as part of their undergraduate degree would have a major and minor endorsement in science). Under current legislation, school boards are required to utilize a teacher's endorsements when making assignments for that teacher's first term, probationary, or permanent teaching assignment. Therefore, teachers receive permanent contracts in their area of endorsement, but may transfer to other subjects. In addition, endorsements are not well aligned with subject areas and may not be sufficiently rigorous (e.g., they do not require advanced coursework).

Teacher hiring and assignment processes vary, sometimes significantly, among school boards:

1. Hiring

In seven of the province's eight school boards the hiring process is led by principals in partnership with school board Human Resource, Program, and Student Services staff. In the Cape Breton-Victoria Regional School Board, by comparison, all new hiring is coordinated by central office staff in collaboration with principals. Many school boards pay close attention to ensure they match the teachers' academic background to their teaching assignments, especially in areas such as resource, guidance, French, and physical education. In the Halifax Regional School Board, principals are required to staff all English and mathematics assignments with teachers who have related educational backgrounds. Other school boards also monitor assignments in these subject areas, but have not formally established policies or guidelines.

2. Assignments

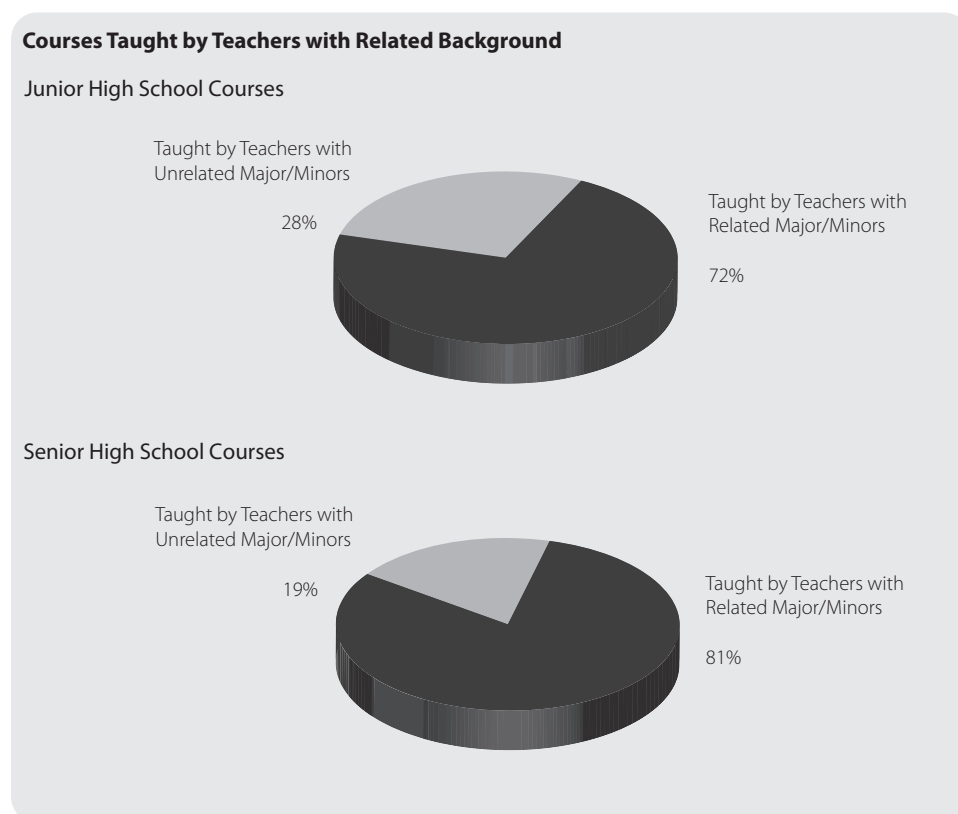
The processes involved in staffing schools each year are complex and can be impacted by local challenges, and/or requirements under the *Teachers' Provincial Agreement*. In junior and senior high schools, where teachers are assigned to specific subject areas, the assignment process is influenced by factors such as staffing allocations, declining enrolments (e.g., small rural schools may have a limited number of classes in specific subjects, reducing capacity for full alignment between content background, and subject assigned), the ability to attract teachers to work in rural schools, and efforts to protect the viability of programs that require specialist qualifications such as French, resource, guidance, technology education, music, and physical education.

Many school boards also face challenges filling subject specialities at the high school level due to limited numbers of candidates applying for available positions. It can be particularly challenging to attract teachers with a related subject background for part-time positions. School boards also reported having difficulty recruiting teachers who have the educational background to teach certain disciplines in French. Each of these factors influences whether or not junior and senior high school courses are being taught by teachers with related educational backgrounds.

In 2007 and again in 2012, the province analyzed the assignments of active junior high and senior high school teachers to determine the percentage of courses that were being taught by teachers with educational backgrounds related to the subjects they were teaching. In 2007, 67 percent of junior high school courses and 73 percent of senior high school courses included in the analysis were taught by teachers with a related educational background. The 2007 Audit of Teaching Assignments highlighted a number of subject areas where the percentage of courses being taught by teachers with related backgrounds was high, including: junior high school physical education, junior high school social studies, and senior high school chemistry. The 2007 Audit of Teaching Assignments also identified subject areas in which the percentage of courses taught by teachers with related backgrounds was low, including: junior and senior high school mathematics, junior high school English, and junior high school science. The most significant subject area of concern was mathematics at the junior high school level, where only 37 percent of courses were taught by teachers with a related educational background.

The 2012 Audit of Teaching Assignments showed that overall, the proportion of courses being taught by teachers with related educational backgrounds increased to 72 percent of junior high school courses and 81 percent of senior high school courses, up from 62 percent and 73 percent respectively in 2007 (see Figure 1).

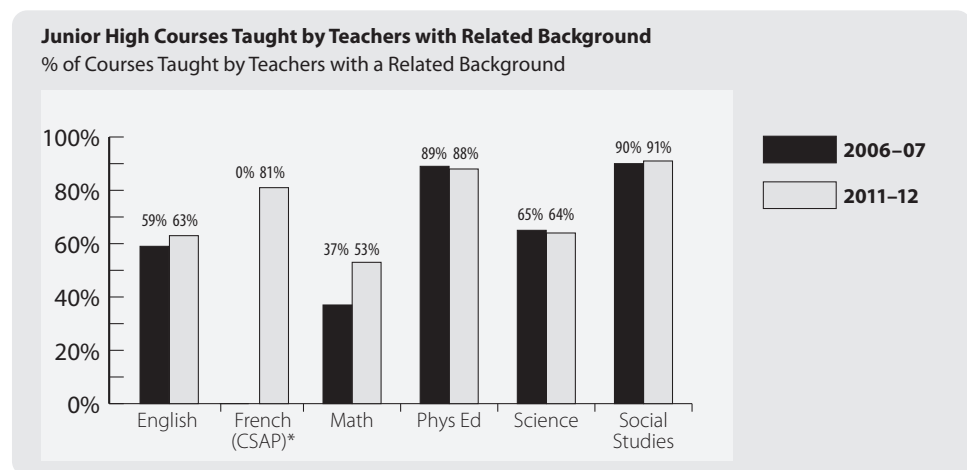
Figure 1



Between 2007 and 2012, there were some notable gains in the alignment of teacher academic content background and courses taught. Members of the Partners' Working Group recognized that this is an outcome of the positive actions taken by some school boards to implement clearer and more rigorous guidelines and processes for teacher hiring and assignment practices. New university cohort programs specializing in subject areas such as mathematics may be contributing to increases in the number of courses taught by teachers with related educational backgrounds.

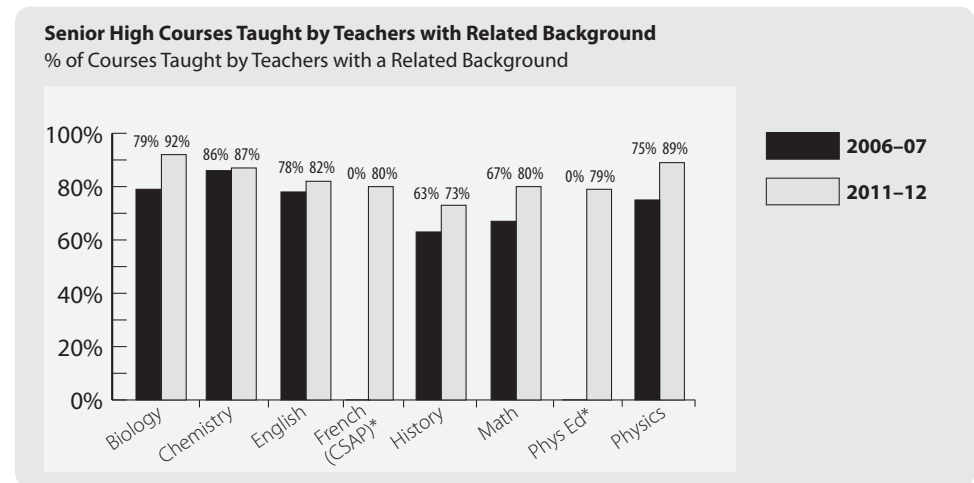
At the junior high school level, mathematics showed a marked improvement in the percentage of courses being taught by teachers with a related background—an increase of 13 percent. Junior high mathematics was a significant area of concern identified in the 2007 audit and, despite the increase, work still needs to be done. (See Figure 2.)

Figure 2



* French (CSAP) was not included in the 2007 Audit of Teaching Assignments analysis.

The 2012 Audit of Teaching Assignments shows an improvement in each subject area at the senior high school level, when compared with 2007 data. Biology and mathematics showed the largest improvement between 2006–07 and 2011–12: biology results improved from 79 percent of courses in 2006–07 to 92 percent of courses in 2011–12 taught by teachers with related educational backgrounds, and mathematics results improved from 67 percent of courses in 2006–07 to 80 percent of courses in 2011–12 taught by teachers with related educational backgrounds. History continues to be a concern with only 73 percent of courses taught by teachers with a related background although this is an improvement over 63 percent in 2006–2007 (See Figure 3).

Figure 3

* French (CSAP) and Physical Education were not included in the 2007 Audit of Teaching Assignments analysis.

Professional Learning

Teachers gain a foundation of content and pedagogical knowledge through their undergraduate degree and post-baccalaureate pre-service or bachelor of education program. They are expected to continue their learning through continuous professional development, such as in-service and degree or certificate programs. To ensure the highest possible degree of support for students, and to support effective instructional practice, teacher professional learning must be relevant, comprehensive, high quality, and have clear links to classroom needs.

Professional learning is important for teachers to keep current with pedagogical practices, to develop their skill in applying these practices, and to deepen their existing content background in subject areas that they teach. In Nova Scotia, all permanent or probationary teachers are required to complete 100 contact hours of professional development every five years. Under current legislation, teachers are required to maintain a professional development profile and submit it to the school board where they are employed each year.

The Education Professional Development Committee (EPDC) outlined a vision for teacher professional learning in Nova Scotia. Following a review of extensive research and consultation on teacher professional learning in Nova Scotia, the EPDC concluded that effective teachers are continuous learners, and that gains in student achievement can be met with a focus on student learning and improvements in instruction. The EPDC noted that there has been a growing consensus among researchers that high-quality professional development has the effect of challenging participants' current thinking, adds to their skills and knowledge, leads to improvements in their practice, and enhances their contribution to their schools. Most importantly, high-quality professional development leads to higher levels of student achievement.

School boards across the province are working to adopt similar best practices for professional development and learning: providing time for teachers to meet in professional learning communities, supporting in-school professional mentors and coaches, facilitating school-based and regional professional development opportunities, and promoting the value of individual professional growth planning aligned with teacher and school goals. Teachers have many opportunities to pursue personal goals for professional development alongside school-wide opportunities, which have in recent years become increasingly aligned with school, school board, and provincial priorities for improved student achievement.

The Vision for Teacher Professional Learning in Nova Scotia

All teachers are engaged in collaborative professional learning.

Effective use of student data is central to informing teachers' professional practice and individual learning goals.

The essential curriculum is well-defined and understood across the system, and the curriculum outcomes are addressed in all classrooms.

A variety of classroom-based assessment practices provide current and reliable student data for learning and of learning.

Teachers are engaged in talking about teaching and learning with a shared sense of purpose.

Principals provide critical instructional leadership in a supportive environment.

School boards and the Department of Education provide strong, systematic, and differentiated support for schools depending on school improvement goals and the learning needs of the teachers and students.

— *Report and Recommendations of the Education Professional Development Committee*
(Nova Scotia Department of Education 2009)

The province's approach to teacher professional learning is following the same trends. The province supported a significant move away from off-site workshop or course models for professional development. In collaboration with education partners, the Department of Education has undertaken significant work to develop this new approach toward a greater emphasis on school-based and job-embedded collaborative learning. Recent collaborative work on professional development in Nova Scotia includes the *Education Professional Development Committee Report and Recommendations*, the Professional Learning Community (PLC) Study Committee, the Nova Scotia Instructional Leadership Advisory Committee, and the current work of the Professional Learning Communities Guiding Coalition.

The Nova Scotia Teachers Union also supports 22 professional associations that provide the opportunity for teacher-initiated professional development. Associations assume responsibility for encouraging and assisting in professional development activities in their respective subject and/or program area. These associations organize professional development activities and curriculum development opportunities that include annual conferences and regional in-service activities, and encourage participation in provincial task forces, committees, and work groups.

Today, more professional learning takes place in schools. This allows teachers to improve instruction based on their professional goals and the emergent needs of students aligned with the school context. The province's new Instructional Leadership Academy (ILA) is helping to increase the capacity for school-based leaders to provide instructional leadership to teachers as they work toward professional learning goals both individually and

in teams. Aimed at increasing student learning and achievement in Nova Scotian public schools, the ILA currently targets principals and vice principals. It has recently expanded to include school board consultants who do not have supervisory responsibilities for principals. Programming for teacher leaders will be also considered as an area for expansion in the future.

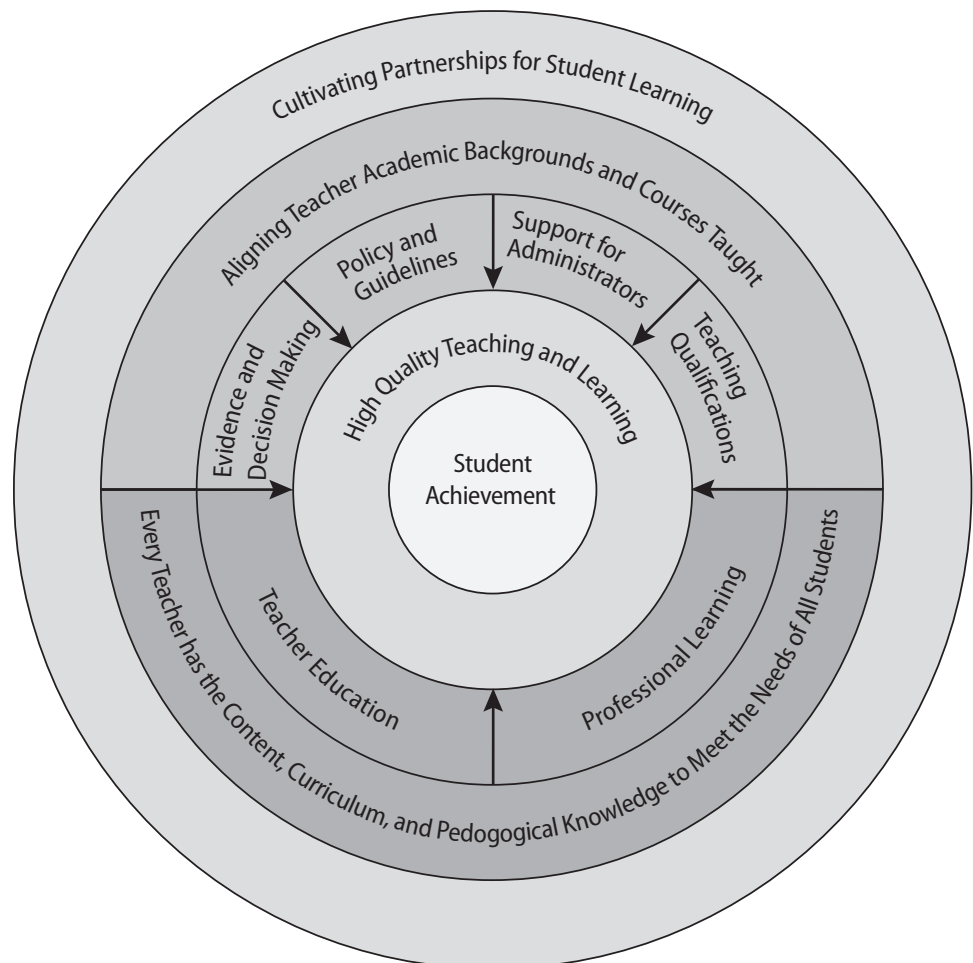
Teacher professional learning is also supported by Nova Scotian universities through graduate degree and certificate programs. A significant majority of master of education programming in Nova Scotia is now provided through a cohort model, which allows the five Nova Scotian universities offering bachelor of education programs to collaborate effectively and respond to system needs. Co-designed cohort programs in areas such as literacy, mathematics, and guidance are allowing universities and school boards to partner in meeting regional needs more effectively. Many cohort programs are also designed to enable teachers to connect the pedagogical and curricular knowledge with their current teaching assignments through applied or job-embedded learning.

Key Findings and Recommendations

After several months of reviewing the evidence from a wide range of sources, the Partners' Working Group identified a final set of ten recommendations to be presented to the Minister of Education and Early Childhood Development. The recommendations fall under six inter-related areas (see Figure 4) that the Partners' Working Group felt would affect the positive change in creating a stronger alignment between teacher assignments and professional learning with the needs of students in Nova Scotian classrooms.

The Partners' Working Group also felt that the success of recommendations relating to the core mandate of their work would be greatly enhanced through more effective and regular communication among education partners including school boards, universities, the Nova Scotia Teachers Union, the Education Program Committee, the Education Consultative Forum, Human Resource Directors and Coordinators Committee, and the Nova Scotia Federation of Home and School Associations. Therefore, a third overarching area of focus—Cultivating Partnerships for Student Learning—was added.

Figure 4
Aligning Teacher Qualifications with the Learning Needs of Nova Scotian Students



Cultivating Partnerships for Student Learning

The importance of ongoing communication and collaboration among education partners was a major theme during meetings of the Partners' Working Group. The Partners' Working Group discussed the positive learning experiences from doing this work together and attributed much of this success to the diverse makeup of the group. All members strongly believed that achieving the recommended actions depends on the extent to which appropriate partners—including representatives from schools, school boards, the Nova Scotia Teachers Union, universities, and parent groups—are engaged.

The Partners' Working Group believes the province should consider establishing a mechanism for key education partners to continue working together on the implementation of recommendations arising from their work during the 2012–13 school year. A forum to bring together key education partners would allow for ongoing collaboration and provide an effective mechanism to keep all education partners informed about provincial priorities related to the alignment of teacher academic backgrounds and assignments, and teacher professional learning.

- 1. The Partners' Working Group recommends that the Department of Education and Early Childhood Development create a forum for education partners to stay informed and to collaborate, as required, to achieve greater alignment of 1) teacher academic backgrounds and assignments and 2) teacher professional learning with the needs of students in Nova Scotian classrooms.**

Aligning Teacher Academic Backgrounds and Courses Taught

Members of the Partners' Working Group recognized the relationship between effective instruction and student achievement. They agreed that deep content knowledge leads to mastery in a subject area and significantly contributes to quality instruction. Based on this premise, members agreed that a strong alignment between the academic background of teachers and the courses teachers are assigned to teach is extremely important.

School boards have taken many positive steps to strengthen the alignment between teachers' academic backgrounds and assignments, particularly in the areas of physical education, guidance, and resource. In addition to these subject areas—where the Department of Education and Early Childhood Development has established minimum competencies—a number of school boards have created detailed guidelines for teaching assignments, including mathematics and language arts. Members of the Partners' Working Group acknowledged that all partners need to appreciate the equal importance of content, curricular, and pedagogical knowledge, but also agreed that policies guiding requirements for teachers' academic backgrounds may need to be expanded to other specialty areas where similar standards do not yet exist. It was also suggested that system guidelines need to be compatible with provincial and local Nova Scotia Teachers Union agreements and ensure that principals have the information they need to consider multiple factors when making decisions about teacher assignments, including the depth of content knowledge a teacher would bring to teaching the subject.

Conversations among members of the Partners' Working Group led to the identification of four interconnected areas that have the greatest potential to

influence a positive shift in the alignment between teacher academic content background and courses taught in Nova Scotia's junior and senior high schools:

1. Evidence and Data-Driven Decision Making
2. Staffing Policy and Guidelines
3. Support for Administrators and School Board Staff
4. Additional Teaching Qualifications

Evidence and Data-Driven Decision Making

In order to make informed decisions and monitor the effects of shifts in practice, the system must gather and regularly use current data from regional and provincial studies, as well as emerging national and international research. The sources of information should include, but must not be limited to

- findings from provincial audits of teaching assignments
- data about trends in teacher supply and demand
- research on best practice, policy frameworks, and trends in other jurisdictions

2. The Partners' Working Group recommends that the Department of Education and Early Childhood Development use current research and data to set provincial targets and work collaboratively with education partners to develop strategies to reach identified targets in the alignment between teacher academic content background and courses taught.

An evidence-based approach would allow education partners to collaboratively set targets to strengthen the alignment between teacher academic content background and courses taught. Strategies to reach targets would also need to be developed and evaluated on a regular basis. Such strategies would need to consider all stages of the teachers' careers—from recruitment and induction to supporting excellence among practising teachers. Strategies should also leverage opportunities created by the Nova Scotia Virtual School, which is already in place and is designed to provide students with courses taught by qualified, effective teachers regardless of geographical location.

Staffing Policy and Guidelines

Members of the Partners' Working Group discussed the value that provincial guidelines would have on the staffing process, including the assignment and hiring processes. The members felt that provincial guidelines would contribute to greater alignment between teachers' academic content backgrounds and courses taught. The Partners' Working Group also expressed a desire to review the policy framework surrounding the endorsement regulations and its impact on the staffing process.

Members agreed that guidelines must contain some flexibility to allow each school board to operate within its local collective agreement, yet provide enough accountability to ensure improved trends in the alignment between teacher academic content background and courses taught. From the Partners' Working Group's perspective, guidelines for staffing would need to consider provincial regulations regarding endorsements and their relevance to the entire staffing process. Guidelines would need to honour collective agreements while also striving to achieve a focus on ensuring excellence and equity in all classrooms.

When generating the guidelines to address the staffing process, developers could consider including the following elements:

- an effective mechanism for the consistent recording of detailed formal teacher qualifications (i.e., an Employment Passport) to support the appropriate assignment of existing human resources, including an application process that can be used to appropriately measure and distinguish qualifications, experience, skill, and attitudes
- appropriate procedures for the screening and interview processes, including effective interview questions that capture the balance between teachers' content knowledge, curriculum knowledge, and pedagogical skills
- direction on the prioritization of specific subject areas in cases where there is a need for multiple subject assignments (e.g., due to geography, school size)
- details on the formal qualifications required for an endorsement in a specific discipline
- guidelines to ensure hiring and assignment practices reflect employment equity and diversity best practices

3. The Partners' Working Group recommends that the Department of Education and Early Childhood Development examine provincial legislation and regulations related to endorsements to identify how current policies and practices can be improved to meet the needs of the Nova Scotian school system.

4. The Partners' Working Group recommends that the Department of Education and Early Childhood Development work with education partners to develop provincial guidelines for hiring and staffing processes (including hiring of new teachers and the assignment of current teachers) to increase alignment between teacher academic background and courses taught.

Support for Administrators and School Board Staff

To effectively implement best practices in staffing and assignments, the Partners' Working Group emphasized the importance of comprehensive professional development for principals and school board staff. Topics to be addressed in the professional development would include the purpose and details for provincial staffing and assignment guidelines, requirements for assigning teachers within their areas of expertise and the relationships among teacher content, curricular and pedagogical knowledge, and student achievement.

Members of the Partners' Working Group agreed that the Department of Education and Early Childhood Development should bring a variety of education partners together to design and consider the best model for the delivery and ongoing support for principals and school board staff, including the creation of new opportunities for principals for the purpose of sharing effective practices in areas such as hiring and scheduling.

- 5. The Partners' Working Group recommends that the Department of Education and Early Childhood Development facilitate the development of a comprehensive framework for professional learning to support the effective use of best practices in staffing, and work with school boards to support its implementation with principals and school board staff throughout the province.**

Additional Teaching Qualifications

The Partners' Working Group recognized that the alignment between teachers' academic backgrounds and courses taught could be strengthened if teachers already within the system are given access to formal academic programs that enable them to acquire additional qualifications that could be recognized for endorsement. There should be multiple and flexible options available for teachers to access these programs.

- 6. The Partners' Working Group recommends that a series of formal academic programs be identified or created to allow teachers to gain additional qualifications in teaching divisions and/or subject areas.**

Aligning Teacher Education and Professional Learning with the Needs of Students in Nova Scotian Classrooms

In order to ensure the highest possible degree of support for students and to facilitate effective instructional practice in every classroom, members of the Partners' Working Group believe that teacher professional learning must be relevant, high quality, and have clear links to classroom needs. The Partners' Working Group had many discussions with respect to pre-service and in-service learning and members felt very strongly that both teacher preparation and teacher professional learning contributed to the success of students.

The Partners' Working Group believes that there are a number of ways to strengthen current approaches to professional learning in the province. For example,

- increasing the alignment among the professional learning opportunities offered by the Department of Education and Early Childhood Development, school boards, the Nova Scotia Teachers Union, the Nova Scotia Educational Leadership Consortium, and Nova Scotian universities
- creating the time and ensuring that other conditions are in place to support professional learning communities and collaborative teams during the school day
- using the Nova Scotia Virtual School and other online tools to support virtual collaborative learning environments
- enhancing on-site opportunities, such as professional learning communities and/or the use of mentors and coaches to enhance knowledge acquired through academic courses and programs
- increasing opportunities for collaboration and support among teachers in cases where they are placed outside areas of expertise

The members of the Partners' Working Group also expressed concern that while teachers are currently required to complete 100 hours of professional learning every five years, there is little formal monitoring and oversight of this requirement.

Teacher Education

While not in the original scope of the Partners' Working Group, many members felt that the goal of strengthening alignment between teacher academic content background and courses taught starts with initial bachelor of education programs delivered in Nova Scotia. Authentic cooperation between the Department of Education and Early Childhood Development and pre-service education institutions, as well as between school boards and these institutions, would ensure the most recent information on curriculum, assessments, and teaching strategies are rooted in the pre-service programs. It would also allow new provincial initiatives, such as EduPortal and iNSchool to be embedded in the programs.

7. The Partners' Working Group recommends that pre-service programs are informed by the most up-to-date information on curriculum, assessment, and pedagogy.

Professional Learning

Supporting ongoing learning for practicing teachers and administrators was seen as a critical factor to successfully achieve the goal of meeting the needs of students in Nova Scotian classrooms.

The Partners' Working Group believes that

- a coordinated, coherent, and aligned structure of professional learning will meet system needs (including alignment among Department of Education and Early Childhood Development, school boards, Nova Scotian universities, the Nova Scotia Educational Leadership Consortium, and the Nova Scotia Teachers Union)
- a balance among content, curriculum, and pedagogical knowledge is needed in all professional learning
- professional learning should support the staffing needs of a school and teachers' present or future teaching assignments

Members of the Partners' Working Group reviewed the *Report and Recommendations of the Education Professional Development Committee*. Members supported the recommendations of that report and offer the following recommendations to emphasize and reinforce the EPDC findings.

8. The Partners' Working Group recommends that the Department of Education and Early Childhood Development and school boards continue to strengthen school-based professional learning that responds to the day-to-day learning needs of teachers and administrators.
9. The Partners' Working Group recommends that education partners continue to work collaboratively to review the current approach to professional learning to identify priorities that are coordinated with the current needs of students in Nova Scotia's classrooms.
10. The Partners' Working Group recommends that the Department of Education and Early Childhood Development implement standards of practice for professional learning and use the standards to inform decision making in planning and evaluating professional learning.

Appendix A: Members of the Partners' Working Group

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Parent Representative
Nova Scotia Federation of
Home and School Associations

Appendix B: Recommendations

1. The Partners' Working Group recommends that the Department of Education and Early Childhood Development create a forum for education partners to stay informed and to collaborate, as required, to achieve greater alignment of 1) teacher academic backgrounds and assignments and 2) teacher professional learning with the needs of students in Nova Scotia's classrooms.
2. The Partners' Working Group recommends that the Department of Education and Early Childhood Development use current research and data to set provincial targets and work collaboratively with education partners to develop strategies to improve provincial trends in the alignment between teacher academic content background and courses taught.
3. The Partners' Working Group recommends that the Department of Education and Early Childhood Development examine provincial regulations related to endorsements to identify how current practices can be improved to meet the needs of the Nova Scotian school system.
4. The Partners' Working Group recommends that the Department of Education and Early Childhood Development work with education partners to develop provincial guidelines that ensure fair and equitable hiring practices and address staffing processes (including hiring of new teachers and the assignment of current teachers) to increase alignment between teacher academic background and courses taught.
5. The Partners' Working Group recommends that the Department of Education and Early Childhood Development facilitate the development of a comprehensive framework for professional learning based on best practices in staffing, and support its implementation with principals and school board staff throughout the province.
6. The Partners' Working Group recommends that a series of programs be identified or created to allow teachers to gain additional qualifications in teaching divisions and/or subject areas.
7. The Partners' Working Group recommends that pre-service programs are informed by the most up-to-date information on curriculum, assessment, and pedagogy.
8. The Partners' Working Group recommends that the Department of Education and Early Childhood Development continue to strengthen school-based professional learning that responds to the day-to-day learning needs of teachers and administrators.
9. The Partners' Working Group recommends that the Department of Education and Early Childhood Development work collaboratively with education partners to review the current approach to professional learning to identify priorities that are coordinated with the current needs of students in Nova Scotia's classrooms.
10. The Partners' Working Group recommends that the Department of Education and Early Childhood Development implement standards of practice for professional learning and use the standards to inform decision making in planning and evaluating professional learning.

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