


November 2011

# State of the Nation: K-12 Online Learning in Canada



Written by  
Michael K. Barbour,  
Wayne State University



# State of the Nation: K–12 Online Learning in Canada

Written by

Michael K. Barbour,  
Wayne State University

November 2011

**iNACOL**  
International Association for K-12 Online Learning

# Acknowledgements

Let me begin by thanking Mickey Revenaugh of Connections Academy, Greg Bitgood of Heritage Christian Schools, and Steve Parker of Digitell Inc. for their sponsorship of this study, along with their guidance, suggestions, and feedback. Also let me thank Susan Patrick and Allison Powell of the International Association for K–12 Online Learning for their editing and publication of this document.

I would also like to thank the following individuals for providing information used in the creation of the provincial and territorial profiles, vignettes, and brief issue papers.

**Jim Tuff** – Centre for Distance Learning and Innovation

**Rene Wicks** – Killick Center, Faculty of Education, Memorial University of Newfoundland

**Sarah Hainsworth** – Nova Scotia Department of Education

**Tommy Chisholm** – Dr. John Hugh Gillis Regional High School

**Edward MacLean** – Prince Edward Island Department of Education & Early Childhood Development

**Kevin McCluskey, Debbie Good, Mike Cusack, Marc André Morais, & Lucie Pearson** – New Brunswick Department of Education

**Eric Copeland** – Rothesay High School

**Suzanne Mainville & Yvan D'Amours** – *Ministère de l'Éducation, du Loisir et du Sport*

**Josée Beaudoin & Solange Racine** – *Centre francophone d'informatisation des organisations*

**Mark Zielinski & Julie Boudreault** – E-Learning Ontario

**Geoffrey Roulet** – Faculty of Education, Queen's University

**Donald Girouard, Howard Griffith, & Gilbert Michaud** – Manitoba Department of Education

**Karen Henderson** – Saskatchewan Ministry of Education

**Darren Cannell, Ryan Hauber, Sandra Climenhaga, & Kelli Boklaschuk** – Saskatoon Catholic Cyber School

**Raja Panwar** – Alberta Education

**Tim Winkelmans & Ed Vanderboom** – British Columbia Ministry of Education

**Greg Bitgood** – Heritage Christian Schools

**JoAnn Davidson** – Yukon Department of Education

**Blake Wile** – Northwest Territories Department of Education

**Andrew Samoil** – Beaufort Delta Education Council

**Brad Chambers** – Nunavut Department of Education

As well as the many individuals who provided information for the individual programme surveys.

Finally, I would like to thank my doctoral students Jason Siko and Joe Vrazo for their assistance with collecting information for and the writing of this report.

# Foreword

Online and blended learning are educational innovations providing access to courses, teachers and educational opportunities for students in Canada, who may not otherwise have because of the geographic isolation of where they live.

Canada was one of the first countries to embrace technology and the Internet to deliver distance learning courses to students in remote locations. Now, countries around the world are providing these opportunities for all students, for a variety of reasons from scheduling conflicts, access for hard to staff courses, credit recovery, dual enrollment with local colleges and universities, and to supplement the face-to-face classroom.

As the International Association for K-12 Online Learning (iNACOL) continues to update its data and research on current trends, challenges, and issues related to the field of K-12 online and blended learning around the globe, we have learned that Canada is facing some of these same challenges such as teacher training and funding policies for online learning, and is seeing some of the same trends in the creation of new learning models and in the growth of student enrollment in online and blended learning courses.

A variety of initiatives are driving online and blended learning in each of Canada's provinces and territories. From teachers' unions in Nova Scotia fighting to ensure online learning is an accepted method of educational delivery, to Ontario's College of Teachers creating an e-learning endorsement for teachers or the British Columbia government creating policies to expand the growth and opportunities online learning provides, there are multiple, isolated initiatives happening across the country.

In order for online and blended learning opportunities to expand for all students in Canada, local government leaders need to create policies to remove the barriers that prevent access to these innovations; universities must provide training and experiences for both pre-service and in-service teachers to use these tools in their classrooms; and administrators need to provide the leadership to implement and support their teachers, these courses, and digital resources in their schools.

*State of the Nation: K-12 Online Learning in Canada* is now in its fourth year of publication and can be seen as a national guide for understanding the field and the state of online learning across all provinces and territories. The report can also provide guidance, resources, and ideas for how to improve both policy barriers and teacher practice in the nation's schools in order to provide access to high quality educational opportunities for all students through online and blended learning.

## **Allison Powell**

Vice President, State and District Services

International Association for K-12 Online Learning (iNACOL)



# Table of Contents

<b>Executive Summary</b>	<b>7</b>
<b>1. Introduction</b>	<b>8</b>
1.1 Methodology	9
1.2 Definitions	11
1.3 How To Read This Document	12
<b>2. Brief Issue Papers</b>	<b>14</b>
2.1 Killick Centre for E-Learning Research	14
2.2 Teacher Education and Preparation for Leading Online Learning	21
2.3 Distributed Learning Funding in British Columbia	25
2.4 Independent Schooling in British Columbia	27
<b>3. National Overview</b>	<b>30</b>
<b>4. Provincial and Territorial Profiles</b>	<b>34</b>
4.1 Newfoundland and Labrador	34
<i>Vignette – John Drover (pseudonym) – Course Developer</i>	35
4.2 Nova Scotia	36
<i>Vignette – Tommy Chisholm – Online Teacher</i>	37
4.3 Prince Edward Island	38
4.4 New Brunswick	39
<i>Vignette – Eric Copeland – Online Teacher</i>	40
4.1 Quebec	41
<i>Vignette – Remote Networked Schools</i>	42
4.2 Ontario	43
4.1 Manitoba	46
4.2 Saskatchewan	47
<i>Vignette – Saskatchewan Distance Learning Course Repository</i>	48
4.3 Alberta	49
4.4 British Columbia	51
4.1 The Yukon	52
<i>Vignette – Nelnah Bessie John School</i>	53
4.2 Northwest Territories	54
<i>Vignette – Beaufort-Delta Education Council E-Learning Program</i>	55
4.3 Nunavut	56
<b>5. Individual Programs</b>	<b>58</b>
5.1 Atlantic Canada	58
5.2 Central Canada	60
5.3 Western Canada	63
5.4 Northern Canada	66
<b>6. Resources</b>	<b>68</b>
<b>7. Bibliography</b>	<b>71</b>
<b>8. Appendix A</b>	<b>74</b>
<b>9. Appendix B</b>	<b>75</b>



# Executive Summary

The *Snapshot State of the Nation: K–12 Online Learning in Canada* study began four years ago. In that initial report, it stated:

Over the past fourteen years, there has been little federal funding for the development and research of K–12 online learning in Canada.... With limited government, foundation, and private support for education research, K–12 online learning programmes have not received financial support for research and evaluation. Moreover, there has been little activity in Canadian higher education towards research of K–12 online learning, compounded by the fact that there are fewer than five-dozen Canadian universities, which limits the focus and scope of K–12 education research. As such, K–12 online learning has continued to develop across Canada quietly, and with little dissemination outside of the country and between individual provinces. (Barbour & Stewart, 2008, p. 5)

This fourth edition of the *State of the Nation: K–12 Online Learning in Canada* study continues the examination of the regulation of K–12 distance education in each of the thirteen Canadian provinces and territories and the level of K–12 distance education activity in each jurisdiction.

There have been few changes to the regulation of K–12 distance education in Canada in the past year. The regulation language continues to vary among the *Education Act or Schools Act*, Ministerial Directives, policy documents issued by the Ministry of Education, agreements signed between the Ministry and the individual school boards, and articles included in the collective bargaining agreement between the government and the teachers' union. British Columbia continues to have the most structured regulatory regime, while Quebec and Saskatchewan continue to have no regulation at all for K–12 distance education. One development over the past year has occurred in the province of Alberta, where the government has continued to shift its focus from distance education to an educational environment where online and blended learning are pervasive; however, little movement has actually transpired on that front.

The use of K–12 distance education continues to grow in Canada, although that growth is uneven and only experienced in certain jurisdictions. Some level of K–12 distance education activity is being seen in all thirteen provinces and territories, with British Columbia having the highest number and highest percentage of student participation and Nunavut having the lowest. Further, the total number and proportion of K–12 students who are enrolled in distance education has increased from 2009–10 to 2010–11. However, that growth was isolated to a few jurisdictions: British Columbia, Quebec, Ontario, and Manitoba. Growth in Newfoundland and Labrador, Nova Scotia, and New Brunswick was relatively flat, while Saskatchewan and Alberta actually reported fewer students engaged in K–12 distance education. There also continues to be a heavy reliance on print-based methods of distance education delivery in some jurisdictions. Distance education is largely viewed as a substitute for brick-and-mortar schools, to be used when that face-to-face learning is not feasible or economic (e.g., in rural jurisdictions, for specialised studies such as French language instruction for native speakers, or for students who aren't able to succeed in the traditional classroom environment).



# Introduction

This is the fourth annual *State of the Nation: K–12 Online Learning in Canada* report. In 2008, the first edition of this study stated that “most of what is known about K–12 online learning from the media and literature is focused upon experiences in the United States” and that the “report [was] the first of many steps that researchers and NACOL [now iNACOL] [were] taking to begin to address the lack of information about K–12 online learning in Canada” (Barbour & Stewart, 2008, p. 5). At the time, the vast majority of the literature related to K–12 online learning in Canada had focused on a few select provinces. For example, some researchers—particularly those at Memorial University of Newfoundland—had written extensively about the transition from an audiographics form of distance education to an online delivery model in Newfoundland and Labrador (e.g., Barbour, 2001, 2005a, 2005b, 2005c, 2007a, 2007b; Barbour & Cooze, 2004; Barbour & Mulcahy, 2004, 2006; Brown, Sheppard, & Stevens, 2000; Healey & Stevens, 2002; Mulcahy, 1999, 2002; Stevens, 1997a, 1997b, 1999, 2000, 2001, 2003, 2004; Stevens & Dibbon, 2002; Stevens & Moffatt, 2003; Stevens & Mulcahy, 1997). Additionally, there were a series of provincial or multiprovince evaluation reports and conceptual vision articles that focused on the jurisdictions of Alberta, British Columbia, and Ontario (e.g., Ballas & Belyk, 2000; Barker & Wendel, 2001; Barker, Wendel, & Richmond, 1999; Haughey, 2005; Haughey & Fenwick, 1996; Haughey & Muirhead, 1999; Muirhead, 1999; O’Haire, Froese-Germain, & Lane-De Baie, 2003).

However, there was an understanding—even a common knowledge—that the use of distance education at the K–12 level was quite extensive throughout the country. Further, there was evidence that schools possessed the physical infrastructure and connectivity to take advantage of K–12 online learning. In 2004, Statistics Canada released a series of reports designed to examine the level and use of connectivity and information and communications technology (ICT) in Canadian schools. Ertl and Plante (2004) found that the number of computers per school ranged from 2.9 students per computer to 6.5 students per computer and that the number of schools connected to the Internet ranged from 91% to over 99%, depending on the individual province or territory. The authors concluded that “virtually all schools in Canada had computers and nearly all were connected to the Internet” (p. 26), and that “not only [were] schools connected to the Internet but access to the Internet within schools [was] also pervasive.... [and] an overwhelming majority of schools used broadband technologies to access the Internet” (p. 26). Moreover, Plante and Beattie (2004) found that 30% of all schools—and 40% of secondary schools—were using the Internet for distance education or online learning.

That first edition of the *State of the Nation: K–12 Online Learning in Canada* provided a very limited overview of the K–12 distance education regulation and activity in each province and territory, relying largely on information from a selected number of key stakeholders and a review

of government documents and websites. Since that initial report, much more has become known about K–12 distance education and online learning in Canada. In May 1999, the Canadian Council on Learning released their report, *State of e-Learning in Canada*, which examined online learning in Canada in the K–12, higher-education, and corporate environments. The authors briefly summarized ICT use and distance education at the K–12 level (based on many of the same reports described above). The authors also cautioned that the “delivery of resources, however, does not guarantee learning, even when the initial barriers of access have been overcome” (Canadian Council of Learning, 2009, p. 61). Later that year, in the second edition of the *State of the Nation: K–12 Online Learning in Canada*, Barbour (2009) provided a more complete description of the regulation and activity of K–12 distance education in each of the thirteen provinces and territories—indicating that there was some form of K–12 distance education activity in each jurisdiction. A year later, in the third edition of the study, Barbour (2010) estimated that there were between 150,000 and 175,000 K–12 students engaged in distance education (proportionally more students than were engaged in online learning in the United States).

In the four years since the publication of the first *State of the Nation: K–12 Online Learning in Canada*, many steps have been taken by researchers and iNACOL to address the lack of information about K–12 distance education and online learning in Canada. In this fourth edition of the study, we sought to update the provincial and territorial profiles that describe the governance and activity of K–12 distance education in each jurisdiction, along with providing vignettes to illustrate a variety of those individuals and programmes that provide these learning opportunities. As with the previous reports, we continued to examine a variety of issues related to the provision of K–12 distance education in Canada. Additionally, we have begun the process of conducting a coast to coast to coast survey of each of the K–12 distance education programmes across the country.

## Methodology

The methodology utilized for the 2011 study included a survey that was sent to each of the Ministries of Education (see Appendix A for a copy of this survey), follow-up interviews to clarify or expand on any of the responses contained in the survey, and an analysis of documents from the Ministry of Education, often available in online format. During that data collection process, officials from the Ministries of Education in all thirteen provinces and territories responded. The profiles in this study were constructed based on these survey responses, along with information provided by any key stakeholders involved in K–12 distance education in each province or territory and the analysis of documents in some instances. Table 1 lists the provinces and territories, and shows the data sources used in the study for the past four years. As seen in Table 1, this is the first time that Ministries of Education from all thirteen provinces and territories responded to the survey (*Table 1*). Data collection sources for the *State of the Nation: K–12 Online Learning in Canada* over the past three years

**Table 1. Data collection sources for the *State of the Nation: K–12 Online Learning in Canada Study***

Province/Territory	2008	2009	2010	2011
Newfoundland & Labrador	KS / DA	MoE / DA	DA	MoE
Nova Scotia	DA	MoE / DA	MoE	MoE / DA
Prince Edward Island	DA	KS / DA	MoE	MoE
New Brunswick	DA	MoE / DA	MoE	MoE / DA
Quebec	KS	KS / DA	MoE / KS	MoE / KS
Ontario	KS / DA	KS / DA	KS / DA	MoE / DA
Manitoba	KS	MoE / DA	MoE	MoE
Saskatchewan	KS / DA	MoE	MoE	MoE / KS
Alberta	DA	KS / DA	KS / DA	MoE
British Columbia	MoE / DA	MoE / DA	MoE	MoE
Yukon	DA	KS / DA	MoE / DA	MoE
Northwest Territories	DA	MoE / DA	DA	MoE
Nunavut	DA	MoE	MoE	MoE

MoE – Ministry of Education, KS – Key stakeholders, DA – Document analysis

Drafts of the profiles were provided to the Ministries of Education, and to any key stakeholders that provided information, prior to publication. They were given the opportunity to suggest revisions—all revisions were seriously considered and most were accepted by the author.

In addition to the provincial and territorial profiles, this year the *State of the Nation: K–12 Online Learning in Canada* study included a comprehensive survey of all of the K–12 distance education programmes in Canada. After an exhaustive Web-based search and discussions with Ministry of Education officials and other key stakeholders, a list was compiled of 242 individual programmes or jurisdictions offering K–12 distance education (see Table 2 for a summary of the programmes/ jurisdictions by province and territory).

**Table 2. K–12 Distance Education Programs/Jurisdictions, 2011**

Province/Territory	Number of Programmes/ Jurisdictions	Response Rate
Newfoundland & Labrador	1	100%
Nova Scotia	5	60%
Prince Edward Island	1	100%
New Brunswick	2	100%
Quebec	3	100%
Ontario	90	40%
Manitoba	38	16%
Saskatchewan	17	35%
Alberta	16	6%
British Columbia	68	4% <sup>1</sup>
Yukon	1	100%
Northwest Territories	1	100%
Nunavut	0	N/A
Total	242	26%

A survey was sent to contact individuals at each of these programmes to obtain some general information about their programmes and the levels of activity for the 2009–10 and 2010–11 school years (see Appendix B for a copy of this survey). The survey was initially sent during the summer months and reminders were sent at the end of the summer and in September. Between one and three follow-up telephone calls were also made. As Table 2 indicates, the overall response rate was quite low.<sup>1</sup>

## Definitions

As with the previous reports, most of the terms used to describe K–12 online learning in Canada are consistent with the terms used in the United States; however, there are some differences. Often in the United States, online charter schools and other full-time programmes are referred to as cyber schools. Charter schools do not exist in Canadian provinces, with the exception of Alberta, however, there are no online charter schools. Therefore, the terms “virtual school” and “cyber school”—along with “Internet high school”—are used interchangeably in the Canadian context.

<sup>1</sup> At the beginning of the 2011–12 school year, a teacher job action was occurring in British Columbia with teachers electing to not perform some noncontract duties, which placed an additional workload on administrators. This job action is most likely the cause of the lack of participation in this voluntary research survey from the 54 public distributed learning programmes in that province.

In many Canadian jurisdictions, online learning is often only a portion of the overall K–12 distance education offerings. Many provinces use the term “distributed learning” to describe all modes of delivery for K–12 distance education (i.e., print-based, video conferencing, and online learning). Additionally, two other terms that may also be unfamiliar to a non-Canadian audience are “Anglophone” (English-speaking) and “Francophone” (French-speaking).

Also, in Canada there is no separation of church and state. As such, several provinces have both a government-funded public school system and a government-funded Catholic school system.

Finally, the author of this report makes use of the definitions provided by the Virtual School Glossary project (see <http://virtuelschool.wikispaces.com/glossary/>) in most other areas.

## How to Read This Document

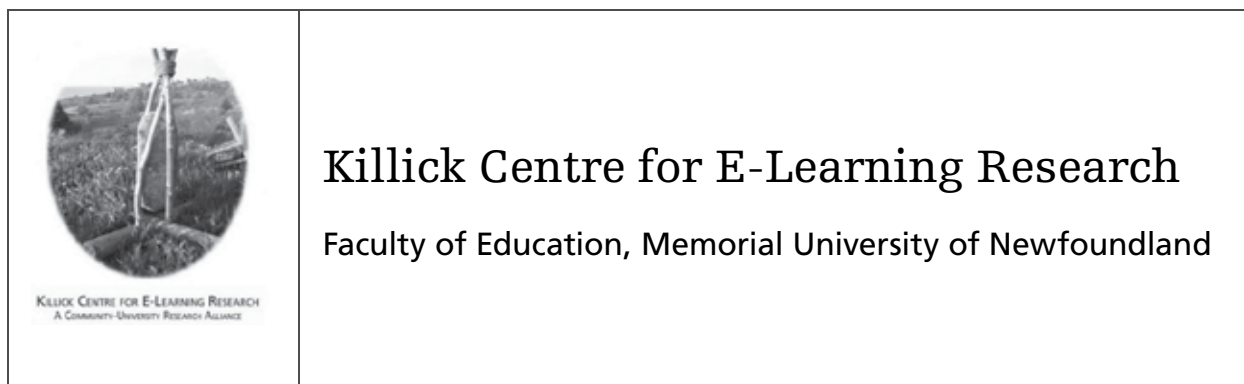
*This State of the Nation: K–12 Online Learning in Canada* report begins with four brief issue papers, which are a discussion of several issues related to the design, delivery, and support of K–12 distance education in Canada. The first of these outlines a federally funded research initiative at Memorial University of Newfoundland, designed to provide even more insights into K–12 online learning in the province of Newfoundland and Labrador. The second is written by an education professor at Queen’s University, Ontario, who examines one university’s efforts to address the necessity of preparing teachers to facilitate learning using online tools and in online environments. The third describes the model used to fund K–12 distance education in the province of British Columbia. The final paper describes the state of independent (i.e., private) distributed learning in British Columbia.

The next section begins with a national overview of K–12 distance education in Canada, which is followed by a discussion of the nature of regulation and level of activity in each province and territory. This section provides a more condensed examination of each province and territory, with more detailed profiles being reserved for those jurisdictions that have not had official Ministry of Education participation prior to this year. In most instances, information that has not changed from previous years has simply been summarised. It should also be noted that this information is simply a snapshot in time, and the currency of the information is limited to the realities of September 2011. There are vignettes following some of the provincial and territorial profiles, which are designed to provide a more personalised perspective of those people who are involved in K–12 distance education in that jurisdiction. This year these vignettes focus on individual course designers and teachers, along with specific programmes where there is less published information.

The final section of the report provides information about the specific programmes located in each of the four regions of Canada (i.e., Atlantic, Central, Western, and Northern), based on the individual programme survey that was conducted. As with previous editions, the report concludes with a listing of resources specific to the provinces and territories.



# Brief Issue Papers



In March 2006, the Faculty of Education at Memorial University was awarded a research grant from the Social Sciences and Humanities Research Council of Canada (SSHRC), through the Community-University Research Alliance (CURA) programme. Under the project title “Building Communities in the New Learning Environment,” the research was operationalised with the creation of the Killick Centre for E-Learning Research, with a mission to foster innovative research, training, and generation of new knowledge in the area of e-learning for education, particularly as it relates to isolated rural areas. While the focus is K–12, the importance of the transition years (from secondary to post-secondary education) is also recognized as an essential part of the agenda.

The alliance includes 15 co-investigators (i.e., 12 university researchers and 3 partner researchers), 10 community collaborators, and 12 community partner organizations representing all players of the education system in the province of Newfoundland and Labrador. To focus the main research mandate, the Killick Centre consulted with all stakeholders during the project development stage and identified three goals.

- Goal 1: Capacity Building
- Goal 2: Increasing the Amount of High-Quality Research in E-Learning
- Goal 3: More Effective Knowledge Exchange in E-Learning

## Partner Consultations and Research Projects

The Alliance Model required that the partners collaborate during all stages of the research endeavor. In July 2005, initial consultation meetings were held, in which partners and researchers identified critical research topics and explored fundamental research questions. The following chart lists those questions and references the specific research projects that were created to address each question.

Research Questions from Partner Consultations	Killick Project(s)
1. Does e-learning make a difference?	<i>Effectiveness Study</i> (Pls: Bruce Sheppard and Tim Seifert)
2. What are best practices in “learner-centered” e-learning in the high school classroom?	<i>Classroom Study</i> (Pl: Elizabeth Murphy) <i>Effectiveness Laptop Study</i> (Pls: Bruce Sheppard and Tim Seifert)
3. Can participation in an online learning community, using new and emerging technologies, impact the practice of pre-service and beginning teachers?	<i>New Teacher Study</i> (Pl: David Dibbon) <i>Cybercell Study</i> (Pl: Ken Stevens)
4. What are effective interventions that can improve the e-learning experiences of Aboriginal students?	<i>Aboriginal Study</i> (Pls: Dennis Sharpe and Dave Philpott)
5. What is the impact of prior learning experiences on success in post-secondary institutions?	<i>Transition Study</i> (Pls: Dennis Sharpe and Dale Kirby)
6. How can district leaders use new and emerging technologies to facilitate better connections with trustees, district personnel, schools, and teachers?	<i>Leadership Study</i> (Pls: Jean Brown, Bruce Sheppard, and David Dibbon)

## Knowledge Mobilization

A major part of the CURA mandate was to “promote sharing of knowledge, resources, and expertise between post-secondary institutions and organizations in the community,” and a major expectation for each CURA project was to include “a knowledge-mobilization component (e.g., workshops, seminars, colloquia, policy manuals and other publications, public lectures, etc.) that met the needs of both academic and community partners. Although the integrity and importance of academic writing was recognized, a plan was developed to ensure that research findings were also communicated in a manner that was relevant and meaningful for the partners. The goal of knowledge mobilization, as stated in a Killick Centre article published in Memorial University’s Gazette, was “to increase community readership, enhance understanding, and decrease the intimidation and mental barriers that often exist when the average person sits to read the results of an academic research study” (Wicks, 2007). Communications, therefore, went beyond publication in academic journals and delivering papers at academic conferences. It included sharing of knowledge through a variety of media and providing opportunities for dialogue, where university and community partners can exchange ideas and generate new knowledge together. A major knowledge mobilization event was the international EDGE 2010 Conference, held in October 2010. With the conference theme “E-learning: the Horizon and Beyond,” this conference attracted presenters, keynote speakers, and participants from all over the world.

## Major Research Findings

### Effectiveness Studies

The main interest of the partner agencies was in “what works” and particularly in ensuring that e-learning developed as effectively and efficiently as possible. Drs. Tim Seifert and Bruce Sheppard conducted a variety of studies on the effectiveness of e-learning, designed to examine e-learning



in comparison with conventional classroom-based learning and to compare different approaches to e-learning. Findings included:

(1) Comparisons were made of the grades and drop-out rates of students in on-campus and distance education classes in the same course, taught by the same instructor, in the same semester, over an eight-year period. Results showed that, on average, there was no difference in average grades, but there was significant variation. Sometimes they were the same; sometimes on-campus grades were higher; sometimes distance education grades were higher. However, students in distance education were more likely to drop the course.

(2) In comparing courses that were taught in distance education and on-campus formats by the same instructor, in the same semester, over the eight-year period, no consistent trends or patterns indicated that distance education was or was not more effective than on-campus, or that the format of the distance education course (i.e., correspondence vs. multimedia vs. discussion) made a difference.

(3) If students were more likely to drop out of distance education classes, was it because they were less engaged? In examining registration records of university students over a two-year period and their engagement in their distance education courses, it appeared that dropping out was most likely to occur at the beginning of the course. The level of engagement did not seem to be a factor.

(4) In mathematics, could online software increase students' level of mathematical intimacy? Results indicated that while there were no differences in general mathematical intimacies between the two groups, students' levels of mathematical intimacy within the online software context showed that they either loved it or hated it.

(5) Using data provided by the Department of Education, the chemistry and physics achievement of students who took distance education was compared with those who received classroom instruction. Sheppard (2009) found that rural students, in both classroom and distance education, achieved similar results to urban students in grade 11 and grade 12 chemistry. Sheppard also found that while rural students in both classroom and distance education did as well as urban students in grade 11 physics, rural students receiving classroom instruction did not do as well as their urban counterparts in grade 12 physics. However, rural students taking grade 12 physics by distance education did achieve as well as students in urban schools.

(6) Seifert and Sheppard (2009) analyzed mathematics scores for students who took grade 11 advanced mathematics followed by grade 12 pre-calculus by either distance education or classroom instruction. The results showed that while urban students receiving classroom instruction did better than rural students completing the grade 11 mathematics course by distance, the scores of urban students decreased in grade 12 to the point that they were similar to rural students completing the course by distance education.

(7) Crocker (2007) examined the differences in grades between students in distance education and classrooms. Crocker reported that, on average, across all courses, students in distance education courses perform slightly better than those in classroom courses; these differences though are small.

(8) Access to distance education has improved for students and created opportunities for them.

(9) The number of course offerings and enrolments had increased over time. The number of courses available to students has nearly doubled in the five-year period considered in the report. Likewise, the number of schools that relied upon distance education courses to enable students to fulfill part of their high school programme has risen.

(10) First year university performance and persistence is significantly different between students who have previous experience with online education experiences and those who do not.

## Aboriginal Study

Web-based high school course delivery is in wide use across Canada and is increasingly viewed as a viable and essential way for students in remote Aboriginal communities to enrich and/or complete their high school education. Most of these students have few other options if they wish to graduate. The overall intent of the study conducted by Drs. Dennis Sharpe and David Philpott was to identify factors that, if addressed, could potentially enhance student success in their web-based courses. The initial part of the research involved students, parents, and educators in five Aboriginal communities in coastal Labrador. The outcomes were used to inform a Pan-Canadian survey of educators engaged in web-based course delivery to Aboriginal high school students. All provinces and territories were represented. Results revealed that:

(1) organizational strategies for student success involve strong and committed leadership at all levels, reliable technological infrastructure and on-site support, specific teacher development, trained and motivated on-site facilitators with manageable workloads, and ways to facilitate students who may miss schooling for periods of time;

(2) effective communication with the community, students, and parents is essential, along with engaging community elders and leaders in developing culturally relevant curriculum content;

(3) on-site school details such as student work space, available technology, and connectivity, along with developing community support for e-learning are needed; and

(4) student motivation can be enhanced, for example, by easily accessed and convenient course support, an on-site teacher/mentor/facilitator with time dedicated to e-learning, interactive course delivery approaches, promoting a student learning culture, and the prior development of student essential skills and attributes needed for e-learning. Details of the research can be found in two reports: "Participation of high school students in the isolated communities of coastal Labrador in web-based learning, the current context, perspectives, successes, and challenges," and "A Pan-Canadian survey of e-learning for Aboriginal high school students.

## Transition Study

The overall purpose of the student transition project conducted by Drs. Dennis Sharpe and Dale Kirby was to compare the post-secondary education and workforce transition experiences of students who take online courses in high school with those who do not. Students in rural Newfoundland and Labrador schools, many of whom are able to access provincially delivered

distance courses to complete high school, formed the initial study sample. The first part of the research involved over 1,000 students in their final year of high school. Later surveys tracked and compared students as they progressed through post-secondary education. Results revealed that:

- (1) while in high school, the distance learner group were more likely to be aspiring to attend post-secondary education (particularly university), had higher levels of self-efficacy with respect to computer skills and reading ability, and were more positively disposed toward school;
- (2) student choice between university and non-university post-secondary education was significantly impacted by academic factors, gender, and after-school activities than by participation in distance courses;
- (3) the high school distance learners were not disadvantaged when they attended university and were more likely to persist to their second year of studies; and
- (4) there was no evidence among fourth year university students that prior high school online learners were advantaged or superior to others or that their self-regulatory attributes such as time management and goal setting were different.

Possible next steps in this research would be to examine (a) student transitions into the workforce and (b) the high school distance learners who selected non-university programs.

## Leadership Study

Formally titled “District Leadership for the New Learning Environment,” this study sought to answer the question: *How can district leaders use new and emerging technologies to facilitate better connections with trustees, district personnel, schools, and teachers?* Drs. Jean Brown and Bruce Sheppard conducted individual and focus group interviews and administered surveys with provincial and national groups. In addition, Skuladottir (2011) made comparisons between administrators in the province of Newfoundland and Labrador and the country of Iceland. The theoretical framework of leadership that was used was collaborative, inclusive, values-based, goal-oriented, and focused on fostering organizational learning. Findings indicated that administrators were using new and emerging technology, but they were all too often not provided the professional development and technical support they needed. It was of interest to note that many district leaders saw the use of Smartphones on a 24/7 schedule as expected, although this was not supported by interviews with senior leaders. Trustees were interested in using new and emerging technology, but there was a wide range in the level of use—from those who blogged and used social networking as a means to communicate with parents, to others who were reluctant to even share private telephone numbers. Evidence supported the view that school districts were essential in assisting all school and district leaders in making better connections within the educational system.

## Cybercell Study

The objective of “Collaborative Learning Circles and Cybercells,” as part of the CURA study, was to link pre-service teacher education at Memorial University to selected schools in the province so that future students could take advantage of recent technological and organizational advances to link theory with practice. The link between pre-service and in-service teachers had developed using cybercells—a face-to-face group whose members extend their discussion to include virtual visitors

(Stevens & Stewart, 2005). The study had three dimensions, all of which were met: (i) linking social and educational theory in intermediate and secondary courses at Memorial University to real life in classrooms in Newfoundland and Labrador schools; (ii) strengthening pre-service and in-service teacher links through discussion of shared issues; and (iii) providing insight into contemporary teacher education to practising teachers in schools in this province. Many graduating students from the teacher education program at Memorial University elected to continue to be associated with selected courses from their positions in schools to which they were appointed upon graduation. As professional associates of the faculty and located in schools, many provided practical insight into the day-to-day life of schools for pre-service teachers and in some cases facilitated links between theory and practice.

## Historical Study

This longitudinal study, conducted by Dr. Trudi Johnson, was a comparative analysis of the perceptions of distance education in the province of Newfoundland and Labrador over a ten-year period. Initial data was obtained from a study entitled “Effective Schooling in a TeleLearning Environment,” conducted by the Centre for TeleLearning and Rural Education, Faculty of Education, Memorial University in 1999–2000. Then in a series of extensive interviews throughout the province during 2009, principals, teachers, parents, and students were asked to comment on various aspects of distance education. Drawing on historical methodology, this research focused on the nature of change and continuity over time and attempted to explain why and how change occurs. The key findings are listed here.

- (1) In both studies, respondents consistently identified the lack of effective teacher-student interaction as a drawback of distance education.
- (2) In both studies, the majority of parents, teachers, administrators, and students believed that the distance education program is best suited for a particular type of student. Successful distance education students are more motivated and tend to work harder. There was a consensus among teachers, parents, and principals from both studies that being able to work with others is an important part of being successful in distance education courses. The majority of students in the recent study did not agree.
- (3) In the initial study, 92% of distance education students felt that taking distance education courses helped them to become more independent learners. The respondents in the 2009 study agreed on the benefits of distance education, which included the development of teamwork skills, communication skills, and self-confidence.
- (4) According to those who responded to the initial survey, offering distance courses to a few top students in a small school had a negative impact on the remainder of the school. This was an important concern in the early years of distance education. In contrast, very little was said of this issue in the more recent study.
- (5) In both studies, parents continued to feel strongly that distance education courses affected the government’s support for local schools and teachers and even challenged the existence of schools. In the 2009 study, there was a general feeling that community support for distance education had improved.

(6) In the initial study, 95% of distance education students perceived that teachers had high expectations of them. This contrasts with 55% in the recent study.

(7) In both studies, students consistently cited the physical presence of the teacher as the one major advantage of learning in a face-to-face classroom.

## Classroom Study

Conducted by Dr. Elizabeth Murphy, this study was premised on Haughey's (1997) argument that the teacher was the most essential element of successful secondary schools and that the e-teacher was therefore a pivotal factor in the effectiveness of distance education at the high school level. As in the face-to-face classroom, e-teaching practices must be guided by learner-centered principles that support engaging and meaningful opportunities to construct and share knowledge. Part of the research included a study conducted to gain insight into teachers' beliefs about e-learning. Data collection relied on discussions conducted with sixteen teachers from six high schools in two adjacent municipalities of one Canadian province. Data collection and analysis were guided by a framework of research-validated, learner-centered principles. Teachers' beliefs portrayed learners as digital natives who actively consume information and knowledge, engage emotionally with technology, and devote themselves to it. Beliefs about teaching referred to teachers as guides and mediators in the knowledge process who can give creative control of the technology, engage learners, and promote higher-order thinking skills. Beliefs about the Internet highlighted its potential to provide unlimited, authentic, purposeful, relevant, participatory, and individualized learning that can take place outside the classroom.

In another part of the research, a framework was developed that might be used by researchers to analyse transcripts of discussions for evidence of engagement in metacognition, by instructors assessing learners' participation in online discussions, or by designers setting up metacognitive experiences for learners. Specifically, prompts and examples were devised as a general guide or as a starting point for identifying and promoting metacognition in online discussions.

## Conclusion

Research conducted by the Killick Centre has resulted in numerous publications. Researchers and partners have co-presented at conferences worldwide, and four research projects have been honoured with international awards for excellence in research. In addition, the CURA-sponsored project has placed a major emphasis on student training, providing grants, fellowships, and employment opportunities to undergraduate and graduate students.

In assessing the impact on community partners, ongoing dialogue has identified how the research can potentially influence policy and practice. As the project funding draws to an end, a final symposium will be held with partner organizations to review findings and to discuss the Killick Centre's influence within the broader educational community.

## References

Crocker, R. (2007). *Distance learning: access and outcomes*. St. John's, NL Memorial University of Newfoundland. Retrieved from [http://www.mun.ca/killick/documents/TrendsReport\\_Draft2.pdf](http://www.mun.ca/killick/documents/TrendsReport_Draft2.pdf).

- Haughey, M. (1997). Successful secondary schools in Canada: A report on the exemplary schools project. *Canadian Administrator*, 36(5), 1–12.
- Seifert, T., & Sheppard, P. (2009). *The effectiveness of web-based distance education courses in mathematics instruction: Briefing report 2009*. St. John's, NL: Memorial University of Newfoundland.
- Sheppard, P. (2009). *Determining the effectiveness of web-based distance education in mitigating the rural-urban achievement gap*. Unpublished master's thesis. St. John's, Newfoundland and Labrador, Canada: Memorial University of Newfoundland.
- Skuladottir, E. (2011). *Principals' use of technology in Iceland and Newfoundland and Labrador*. Unpublished master's thesis. St. John's, Newfoundland and Labrador, Canada: Memorial University of Newfoundland.
- Stevens, K. J., & Stewart, D. (2005). *Cybercells – Learning in actual and virtual groups*. Melbourne, Australia: Thomson-Dunmore.
- Wicks, H. (2007). De-coding research language for the street. *Gazette*, 40(1), 4.



## Teacher Education and Preparation for Leading Online Learning

Geoffrey Roulet, Faculty of Education, Queen's University, Ontario

The discussion paper *What if? Technology in the 21st Century Classroom*, issued in the spring of 2009 by the Ontario Public School Boards' Association (OPSBA), opens with a story of an eighth-grade class employing multiple information and communications technology (ICT) tools and web-based resources to complete and present group projects within their history studies. This "Classroom 2.0," a fiction presented to illustrate the OPSBA's vision of school activity in the very near future, pictures the Internet being used to break down the walls of the classroom—permitting students to access information sources and collaborate over networks, during class hours and beyond from home, and allowing parents to virtually visit to observe and interact with their children's work. The discussion paper acknowledges that teachers are key to the realisation of the dream, but it also notes potential resistance since many entered the profession before digital devices heavily populated our world and lives. The OPSBA puts its faith in "new teachers, who have little recollection of a world without the conveniences of an array of software and the ever-available Internet" (p. 11). It is true that most students in Bachelor of Education (i.e., undergraduate teacher preparation) programmes are members of the so-called "net generation," but are they ready to effectively employ their digital media skills in the daily practices of school?

Surveys of students beginning teacher education programmes indicate that many are heavy users of digital devices and the Web for social interaction and entertainment. In contrast, very few have employed ICT tools beyond a word processor in creative intellectual work, and an even smaller

proportion have employed the Web for the collaborative development of knowledge. They may not be opposed to using YouTube videos in their future classes and having their students contribute reactions in a Twitterfeed, but they have not thought about how to structure such activities to maximise pupils' learning. In efforts to address these issues, most faculties of education have created courses in which teacher candidates can explore the educational uses of ICT. In 2006, with a particular focus on the use of web-based tools and resources, the Faculty of Education at Queen's University introduced a three-credit course called Teaching and Learning Online. This elective was designed to address the needs of teacher candidates who were interested in using web-based tools to enhance regular classroom based schooling and also those considering teaching the growing number of secondary school (i.e., grades 9–12) credits that are offered fully online through e-Learning Ontario,<sup>2</sup> a branch of the Ministry of Education. At the time of its introduction, a cross-Canada survey of universities indicated that this was the only pre-service course available with a focus on employing the Web in teaching and learning.

Teaching and Learning Online had two major focuses: courses or units delivered entirely via online instruction, and a classroom teacher's use of online materials within and as an adjunct to regular school programs. The topics related to these themes (listed below) were blended during the 40 hours of course time.

Online courses or units:

- organising curriculum for online instruction
- presentation of online content
- development of online interactive materials for student engagement and learning
- development of online student collaboration activities
- organising and moderating online communication/discussion
- providing tutorials and student assistance online
- counseling and supporting students prior to and during online study

Online support for regular classroom teaching/learning:

- locating learning objects available on the Web
- construction of learning objects
- assembly of packages of learning objects
- using learning objects for classroom teaching and learning
- making learning objects available beyond class time
- development of course websites
- capturing classroom activity and displaying via the Web
- examination of school board systems for support of online extensions of classroom activity

It is interesting that the above knowledge and skills could be employed by teachers at any grade level and the original proposal called for the course to be open to all teacher candidates. However, the faculty—reflecting the secondary school credit course focus of e-Learning Ontario—restricted enrolment to those preparing to teach in grades 7 to 12.

---

2 See <http://www.edu.gov.on.ca/elearning/> for additional information.



Teaching and Learning Online attempted to strike a balance between helping participants construct a research-based personal image of online learning and the development of specific skills to support the enacting of their plans. During in-class and online sessions, participants explored and made presentations on teachers' present uses of the Web, critiqued and expanded on these with reference to theories of learning and published studies, and collaboratively sketched out online learning environments for school subjects. Through these activities, class members also experienced how learning management systems (LMS; e.g., *Moodle*), wikis (e.g., *PBworks*), and online tools for collaboration (e.g., *CmapTools*, *Google Docs*, *VoiceThread*) could support learning. In a series of lab activities, participants learned how to build linked web pages containing text, graphics, images, and video; construct simple interactive *Java* applets and *Flash* animations; set up a course in an LMS; and support student sharing via *Adobe Contribute* and wikis. Students were encouraged to employ these new skills whenever possible during their 12 weeks of in-school practice. Assessment was based on students' contributions to the online collaborative activities, completion of the laboratory tasks and, most significantly, the development of an online learning object or environment for use in one of their subjects.

Teaching and Learning Online had an associated three-week practicum in April, near the end of the course. During this time, class members worked with classroom teachers who supported their efforts to employ the Web; course developers in building online learning objects; public agencies (e.g., museums, health councils) in constructing educational websites; commercial enterprises in developing online employee training materials; and teachers in leading online credit courses. Unfortunately, the opportunities for placements involving online teaching were limited by school board policies and the reluctance of online teachers to share their instructional space. Despite regular calls from the Ministry of Education and school boards for better ICT preparation of teachers, these officials were very reluctant to cooperate in providing teacher candidates with productive experiences, and most practicum placements were arranged individually with adventurous classroom teachers and non-school agencies.

Readers may have noticed the use of the past tense in the above. Unfortunately the Teaching and Learning Online course is no longer offered at Queen's University. The survival of elective courses such as Teaching and Learning Online depends upon the interest shown by the students in the courses. In the first three years, enrolment averaged 19 students—approximately 6% of the available students. During the 2009–10 academic year, the course drew just 14 teacher candidates—one below the faculty's cut-off number. In September 2010, when just 4 students registered, the Teaching and Learning Online course was suspended. We have not conducted formal research to determine the reasons for the drop in popularity, but discussions with students suggest two factors. First, a significant number of teacher candidates have participated in at least one university course delivered online. Many experienced this as a rather ineffective attempt to reproduce the lecture format over distance, and thus their views of online learning are rather negative. Although there may be teaching positions available in online programs, these students do not wish to pursue a career in this domain. Second, based on their extensive social media experience, teacher candidates feel that the faculty offers nothing that they need to learn when it comes to using the Web to enhance classroom-based learning. It is interesting to note that this view dies rather rapidly during the candidates' first in-school practicum.

Noting the school system's desire for new teachers who can effectively employ ICT tools and the parallel lack of ICT experiences within their teacher education program, Board of Education students have requested additional opportunities to learn about using school-oriented digital tools and online



resources. During the 2010–11 academic year, the Faculty initiated a series of voluntary evening classes in which candidates explored ICT activities—many web-based—that they could employ in their teaching. Completion of seven sessions plus posting to the course wiki of a paper reflecting on ICT in teaching and learning earned students a certificate that they could append to their general Board of Education record. Demand for spaces in this “ICT Challenge” program was overwhelming, and we were forced to cut off enrolment during the fall and winter terms. The Faculty is now exploring ways to provide this experience through online modules and independent lab experiences, and in future years will most likely make this a compulsory component of the Board of Education program.

In a parallel fashion, teachers already in the school system have been calling for opportunities to explore effective use of the Web in their practice. In 2009, the Ontario College of Teachers issued guidelines for a new Additional Qualifications Course: Teaching and Learning Through e-Learning.<sup>3</sup> Successful completion of this 125-hour course, offered by a variety of Faculties of Education (including Queen’s University<sup>4</sup>), earns a teacher an additional designation on their Certificate of Qualification.

At present, we appear to be stuck in a “chicken or the egg” dilemma. As the OPSBA notes in its “What if?” discussion paper, there is a need for Faculties of Education to demonstrate the use and value of ICT, including online tools and resources, through all courses in the Board of Education program. But at the same time, full commitment to such an activity—by both faculty and students—appears to require prior exposure to grade school pupils effectively engaged in online learning.

## References

Ontario Public School Boards’ Association. (2009). *What if? Technology in the 21st century classroom: An OPSBA discussion paper*. Toronto, ON: Author. Retrieved from <http://www.opsba.org/files/WhatIf.pdf>

---

3 See [http://www.oct.ca/additional\\_qualifications/schedule\\_c/pdf/teaching\\_and\\_learning\\_through\\_e-learning\\_e.pdf](http://www.oct.ca/additional_qualifications/schedule_c/pdf/teaching_and_learning_through_e-learning_e.pdf) for additional information.

4 See <http://coursesforteachers.ca/OurCourses/1-sessionAQ/e-learning.html> for an example of a typical programme.



## Distributed Learning Funding in British Columbia

Tim Winkelmanns, e-Learning Programs Unit, British Columbia Ministry of Education

To implement the distributed learning system described elsewhere in this publication, British Columbia also needed to create a funding mechanism that would both support choice and provide public Boards of Education with the financial resources to meet the province's Standards for Distributed Learning. Planning for the new funding model also needed to consider the following factors:

- Continuous enrolment, rather than a single annual snapshot
- Actual attendance to initiate an enrolment claim, rather than simple enrolment
- Shift to course-based funding, beginning in grade 10
- Legislation and associated court rulings that make it illegal for boards to charge tuition fees for any portion of a programme leading to secondary school graduation (i.e., boards and public schools cannot require students or parents to pay tuition fees for online programmes or courses)

The *School Act* creates a distinction between the choices available to students below grade 10 and to students in grade 10 or higher. Below grade 10, a student may only enroll in one place, including a full programme provided through a distributed learning school. If students in grade 10 or higher enroll in courses in a distributed learning school, they may also enroll for courses at a neighbourhood school—i.e., concurrent enrolments, which are referred to as “duplicate enrolments” or “cross-enrolments,” are permitted.

British Columbia's school system claims three other features that assisted in implementing the funding strategy. First, school taxes are based on local property assessments, collected provincially, and redistributed to school boards according to formulas that incorporate a basic allocation for each student and additional supplements for unique student needs, geographic factors, and other special context-dependent factors. Second, every student in the province has a unique Personal Education Number (PEN) that accompanies each enrolment claim, allowing the Ministry of Education to allocate funding for a student to the one or more schools in which the student is enrolled. Third, the course-based funding model used to support grades 10 to 12 students does not generally impose a limit on the number of courses for which a student can be funded. Although a Full-time Equivalent (FTE) equates to eight full-year courses, a student taking a full slate of eight courses in the timetable along with Fine Arts or Trades courses outside the timetable may generate more than one FTE in funding. Thus, a grade 11 student cross-enrolled in eight courses in a neighbourhood school and two courses at a distributed learning school will generate one FTE funding unit for the former and 0.25 FTE funding for the latter. If all 10 courses were taken at the same school, the funding allocation would still be 1.25 FTEs, but it would be going to only one school or board.

The basic allocation for a distributed learning FTE is \$5,851. The single course allocation of 0.125 FTE is just over \$731. The allocation for adults who have not yet graduated is a little lower, at \$4,430 per FTE or almost \$554 per course. In addition, boards cannot claim the supplements for adult students. The Operating Grants Manual that gives the allocation details for the current school year is available online at <http://www.bced.gov.bc.ca/k12funding/funding/11-12/operating-grants-manual.pdf>.

## Attendance Means Active

For distributed learning students, attendance in a programme is not demonstrated through seat-time requirements. Instead, the Distributed Learning Active Policy outlines several kinds of evidence that a school must collect to document participation in the programme or course. For students in Kindergarten through grade 9, the evidence includes a learning plan (e.g., detailed programme outline) and evidence of student work as described in the plan. For students in grade 10 or higher, the required evidence for each course claim is:

- a learning plan leading to graduation (e.g., course selection form);
- a detailed course plan (e.g., outline, introduction, syllabus);
- substantive student work representing about 5% of course value or effort; and
- instructional communication.

## Continuous Enrolment

Prior to implementing the current funding model, the Ministry engaged in discussions with distributed learning schools about enrolment patterns. From these conversations, the Ministry learned that there was significant back and forth movement of younger students between neighbourhood schools and distributed learning schools. For students below grade 10, this meant that progress through the grades should mirror practice in the school system—generally the schoolwork for a particular grade should be completed by the end of the traditional school year. For learners in grade 10 or higher, though, distributed learning schools expected learners to need and to show more flexibility in terms of when they enrolled and in how much time they needed to complete the coursework.

For both ranges, the Ministry added two additional enrolment data collection dates to the existing province-wide count on September 30: one in mid-February and the other in early May. Nearly all eligible supplements—including English as a Second Language, Special Needs, and Aboriginal Language/Culture—are based only on September 30 enrolment counts. At each count, schools report programme or course activity that is new since the last count, but the allocations are based on grade level.

For students in Kindergarten through grade 9:

- Students reported Active as of September 30 receive the full FTE allocation
- New student counts reported as Active between the September and February receive 50% of the FTE allocation for support to the end of the school year
- New student counts reported as Active between the February and May generate 33.3% of the FTE allocation for support to the end of the school year

For students in grade 10 or higher, new courses are reported and generate the full course allocation (usually 0.125 FTE) for support to the end of the course, regardless of whichever school year or fiscal year that may fall in. For example, Pat enrolls in an online chemistry course in late August and an online biology course the following April, and takes a year to complete each. Assuming the course statuses are Active by September and May respectively, the chemistry course will trigger 0.125 FTE funding in September and the biology course will trigger 0.125 FTE funding in May. Even though Pat is still in those courses the following school year, the distributed learning school may not claim new course funding again, unless Pat takes yet another course.

## Audits

All schools in British Columbia are subject to enrolment audits. A number of schools in each category, including distributed learning schools, are audited each year. Although a number of factors are included in audits, there are two major concerns for the distributed learning audit.

1. Did the course meet Active criteria prior to the enrolment reporting date?
2. Has the course only been claimed for funding once, rather than at each reporting date?

Note: The quality review and audit process were described in greater detail in the brief issue paper entitled “British Columbia’s Quality Framework for Distributed Learning” from the 2010 *State of the Nation: K–12 Online Learning in Canada* report (Barbour, 2010, pp. 20–24).

 The logo features a large number '25' inside a shield-like shape, with a banner below it that reads 'Heritage Christian Schools Since 1986'.	<h2>Independent Schooling in British Columbia</h2> <p>Greg Bitgood, Heritage Christian Schools</p>
--	--

Private schooling (more commonly called independent schools in Canada), like all education in Canada, is very different from jurisdiction to jurisdiction. The majority of independent schools fall into two categories: schools intended for college and university preparation and schools with a strong religious identity. There are, of course, many schools that specialise in other areas, such as fine arts or special education, but these schools represent a very small percentage of the independent school movement. Most of the higher-end academic or prep schools are be found in major population centers throughout Canada. Like most aspects of independent schools, the state of religious independent schools varies greatly from province to province. For example, Ontario and Alberta provide public funding for Catholic schools at close to the same rate as regular public schools, while Quebec has a very high rate of participation in independent schools and subsidizes some schools that meet the province’s strict criteria for funding. The four western provinces have a higher number of independent schools per capita because of provincial funding agreements with schools. Across Canada, there are several accreditation organisations that oversee independent schools. At present, the Canadian Accredited Independent Schools is the largest accreditation body.

When it comes to online education and independent schools, almost all the activity to date can be found in Ontario or British Columbia. For example, the Virtual High School–Ontario is an online program designed primarily to supplement students’ traditional learning that offers Ontario accredited courses for tuition. This is not to say that independent schools aren’t taking advantage of online solutions and blended learning. In Ontario, a group of sixteen high-end academic schools have come together to create the Conference of Independent Schools eLearning Consortium<sup>5</sup>, a repository of online courses and learning solutions. However, like many other aspects of K–12 distance education, it is British Columbia that is leading the way when it comes to online independent schools, largely due to the unique relationship that independent schools have with the British Columbia Ministry of Education.

Independent schools in British Columbia receive funding from the Ministry of Education at a 50% ratio to public school funding. However, unlike the independent brick-and-mortar schools, most of these distributed learning programs do not charge tuition. Brick-and-mortar schools must charge tuition to make up the 50% funding gap, whereas independent distributed learning schools—which are often competing with public distributed learning schools for students—are able to operate using only the 50% provincial funding they receive from the government. This has created some concern among public school educators who have relied on the public option of always being “free” as a counterpoint to sending students to a private independent school. In the distributed learning world, public schools are no longer able to compete solely on the price to the student’s family.

Like any K–12 school in the province, independent schools in British Columbia must follow the provincial learning outcomes closely in order to receive this funding from the government. At present, there are fourteen independent schools in British Columbia that are designated as distributed learning or distance education schools, nine of which have a religious focus. There are also three additional applications for distributed learning programmes with the Ministry of Education, and two of these are religious schools. An example of these religiously focused distributed learning independent schools are the Protestant-based Heritage Christian Schools. Like many of the other religious distributed learning programmes, Heritage started as a brick-and-mortar school. With expansion throughout British Columbia, Heritage found similar Protestant students and families who were seeking non-traditional school options through distributed learning or online education.

In 2009–10, independent distributed learning schools represented more than 21% of all distributed learning enrolment in the province of British Columbia, and this number continues to grow each year. This ratio far exceeded the proportion of independent brick-and-mortar school enrolment in the province, which was approximately 11% of the total K–12 student population. Furthermore, the independent distributed learning schools represented 6.8% of all independent school enrolments in 2009–10, whereas the public distributed learning schools only represented 3.1% of the total public K–12 enrolment for the same year (Ministry of Education, 2010). These numbers also do not include the cross-enrolment of public high school students. Cross-enrolment is where students are enrolled in one school, in most cases a brick-and-mortar school, and take one or more courses online from a distributed learning school. Throughout the province, independent schools are cross-enrolling about 18% of those students who are also enrolled in brick-and-mortar schools.

These numbers reveal the significant impact that independent distributed learning programmes are having within the British Columbia educational system. One distributed learning student in five is seeking education through independent school options, while only one in 10 is looking for a brick-and-mortar independent school option.

---

5 See <http://www.ciselc.com> for additional information about the CIS eLearning Consortium.

One of the primary reasons that distributed learning is so popular among independent school students is because of the unique way in which distributed learning independent schools have connected with the home-schooling community. In 2004, independent schools were granted permission to offer the complete accredited British Columbia curricular program through distributed learning. Each year as the enrolment numbers increased for independent distributed learning, the number of home school registrations has decreased; the last two years have seen a decrease of 9% in the number of home school registrations. Additionally, home school registration has declined by almost 50% over the past 10 years. Many of these students have elected to complete their studies through independent school distributed learning programmes.

At this time, there are three programmes that have enrolled more than 500 full-time equivalents (FTE), and all three have also cross-enrolled a significant number of students. The three programmes are the Traditional Learning Academy in Surrey with 645 FTEs, the Self Design Learning Community in Creston with 1,342 FTEs, and Heritage Christian School in Kelowna with 1,698 FTEs. These figures do not include the cross-enrolled students, which can be significant in some instances. For example, along with the 1,698 FTEs, Heritage Christian Online School also has an additional enrolment of more than 2,500 students who are enrolled in one or more courses with the programme.

Heritage Christian Schools is not only the largest independent distributed learning school system in British Columbia, it is also the largest distributed learning school—public or independent. There are other public school distributed learning programmes that have more student enrolments than Heritage, but those numbers include the students who are cross-enrolled. Heritage Christian Schools has a full online course curriculum, starting from grade 5 through grade 12, which includes a number of Advanced Placement (AP)<sup>™</sup> options for a total of over 110 full online course offerings. The full-time programme of students from Kindergarten to grade 12 is what sets Heritage Christian Schools apart from many of the distributed learning programmes in the province, both public and independent. For example, in 2010–2011, the school enrolled 145 full-time Kindergarten students, which far exceeded any other distributed learning school.

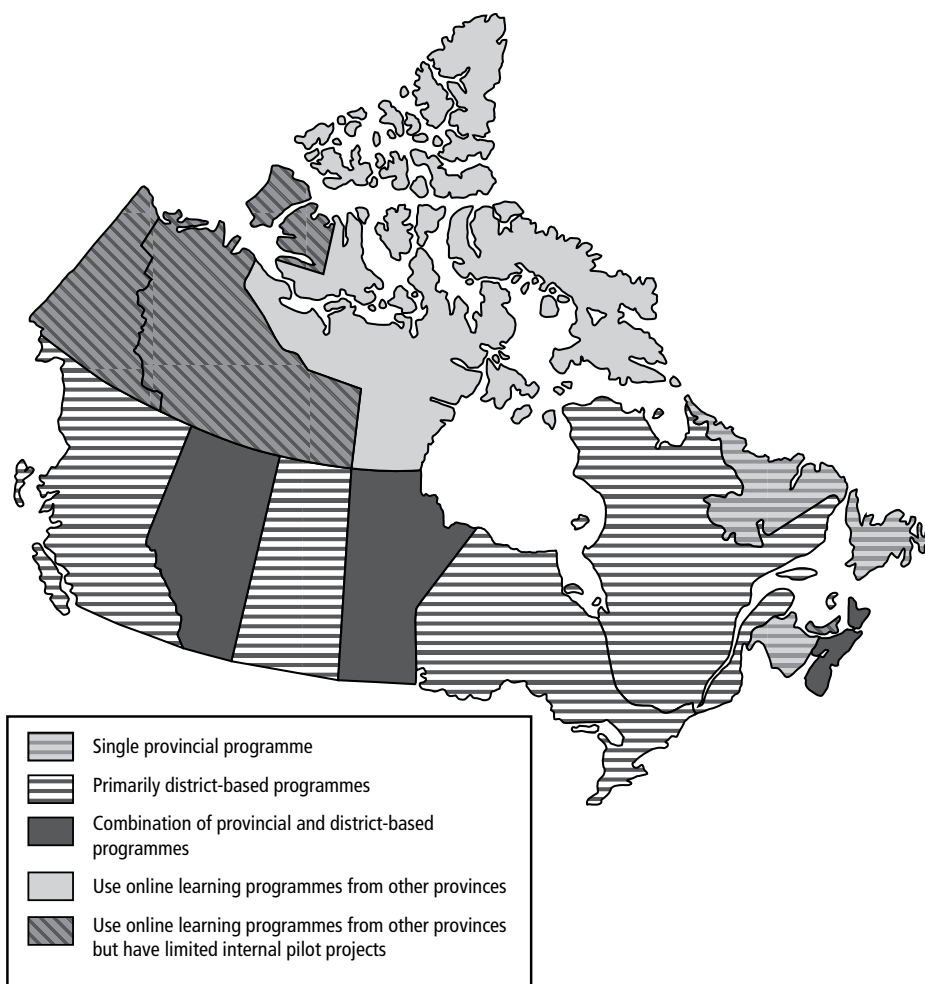
Heritage attributes this success to an elaborate management system that tracks every student's progress down to the individual learning outcome. This allows each teacher, along with the students themselves, to use a variety of resources that in many instances cannot normally be implemented in a traditional programme. Each student's learning can be customised for an individualized experience, which is one of the reasons why Heritage has also become one of the largest special education schools in the province with 187 funded special education students. Younger students generally use a variety of paper-based, home-school-style curriculum. Teachers work closely with parents to create an individualised programme of instruction for each student. The school has also developed an online student management system that allows teachers to match every provincial learning outcome to the students' individual learning and curriculum. Heritage also licenses their curriculum to other distributed learning programmes, both independent and public, throughout British Columbia and all across Canada.

## References

*Ministry of Education. (2010). 2010/11 Summary of Key Information.* Victoria, BC: Author. Retrieved from [http://www.bced.gov.bc.ca/reporting/docs/SoK\\_2011.pdf](http://www.bced.gov.bc.ca/reporting/docs/SoK_2011.pdf)

# National Overview

At present, there is some level of K–12 distance education in all thirteen provinces and territories. The highest level of activity continues to be in British Columbia, where there are a substantial number of district-based and regional-based public programmes, along with a significant number of independent or private programmes. Ontario and Saskatchewan have similar arrangements, where the majority of programmes are district-based (although there appears to be a high level of co-operation between these programs in both provinces). The only jurisdictions that continue to maintain single province-wide systems are Newfoundland and Labrador and New Brunswick, while Nova Scotia, Quebec, Manitoba, and Alberta all continue to operate both district-based and province-wide programmes. The only jurisdiction that does not have its own K–12 distance education programme is Nunavut, which relies on programmes from other provinces. Prince Edward Island, the Yukon, and the Northwest Territories also rely upon distance education programmes in other provinces; however, these jurisdictions also have small distance education initiatives of their own.





At present, the total K–12 population in Canada for 2010–11 included just under 5 million students. Based on actual and estimated enrolment data, the number of students engaged in K–12 distance education was 207,096.

**Table 3. K–12 Distance Education Enrolment by Province/Territory, 2010–11**

Province/Territory	K–12 Students	Enroled in Distance Education	Percent Enrolment
Newfoundland & Labrador	168,729	~1,000	1.5%
Nova Scotia	128,131	~2,450	1.9%
Prince Edward Island	21,126	66	<1%
New Brunswick	104,421	1,841	1.8%
Quebec	949,350	~30,000	3.1%
Ontario	2,061,390	~50,000	2.4%
Manitoba	179,975	~9,000	5.0%
Saskatchewan	159,465	3,285	2.1%
Alberta	585,397	21,339	3.6%
British Columbia	649,952	~88,000	13.5%
Yukon	2,933	95	3.2%
Northwest Territories	8,576	20+	<1%
Nunavut	8,855	~0	-

Records indicate that the level of participation in some provinces and territories actually decreased during the 2010–11 school year from the previous 2009–10 school year (and some jurisdictions, such as New Brunswick, had experienced a further decrease from the 2008–09 school year). However, because of the substantial levels of growth in some provinces, such as British Columbia, the overall proportion of K–12 students involved in distance education actually grew from an estimated range of 2.9% to 3.4% in 2009–10 to 4.2% in 2010–11.

Beyond the level of K–12 distance education activity in each province and territory, there continues to be a wide range of variability in the source and nature of regulation in K–12 distance education across Canada.




**Table 4. K–12 Distance Education Regulation by Province/Territory, 2010–11**

Province/Territory	Type of Regulation	Nature of Regulation
Newfoundland & Labrador	None	
Nova Scotia	Collective agreement	Provisions related to workload, professional development, and quality of life issues
Prince Edward Island	Ministerial directive	Guidelines for the use of distance education
New Brunswick	Ministerial handbook	Responsibilities for distance education stakeholders at all levels
Quebec	None	
Ontario	Ministerial contract	Policies for the district school boards in Provincial E-Learning Strategy
Manitoba	Legislation and Ministerial handbooks	Regulations for the Ministry distance education options; Minister of Education can approve distance education
Saskatchewan	None	
Alberta	Legislation and annual policy document	Regulations for amount of instructional time; Minister of Education can make regulations related to distance education
British Columbia	Legislation and Ministerial contracts	Regulations for funding, quality, and almost all other aspects of the delivery of distributed learning
Yukon	Legislation and memorandums of understanding	Individual agreements between the territorial government and individual distance learning providers; Minister of Education can approve distance education and charge student fees
Northwest Territories	Legislation, policy handbook, and memorandums of understanding	Individual agreements between the territorial government and individual distance learning providers; series of requirements for distance education programmes; education authorities can create or engage in distance education programmes
Nunavut	Legislation and memorandums of understanding	Individual agreements between the territorial government and individual distance learning providers; defines distance education

While many provinces and territories have some reference to distance education in the *Education Act* or *Schools Act*, in most instances this reference simply defines distance education or gives the Minister of Education in that province or territory the ability to create, approve, or regulate K–12 distance education. In many of the jurisdictions where this occurs, there are no additional regulations. The other common trend with the regulation of K–12 distance education is the use of contracts or policy handbooks. These tools tend to be used in jurisdictions where schools or school districts are participating in some form of province-wide programme that is offered, administered, or paid for by a specific government department or agency. Also, much of the regulation of distance education in Canada’s three territories can be found in the specific memorandums of understanding that the territorial governments have signed with individual distance education programmes in British Columbia or Alberta.

The two exceptions to these general trends are Nova Scotia and British Columbia. In Nova Scotia, the main regulation of distance education can be found in the collective agreement signed between the Government of Nova Scotia and the Nova Scotia Teachers’ Union. As was described in greater detail in the Nova Scotia profile found in the 2010 *State of the Nation: K–12 Online Learning in Canada* report, the contract between the Government and the teachers’ union contains 11 provisions that focus on teacher certification, workload issues, definition of a school day for distance education, school-based supervision and administration of distance education students, distance education class size, professional development, and governance (Barbour, 2010, pp. 31–32). British Columbia continues to have the highest level of regulation for K–12 distance education of any Canadian jurisdiction. Some of the key features of this regulation include, but are not limited to, the devolution for the responsibility of distance education to the schools and school boards, a system that allows students to freely choose any distance education option and a funding model where the funding follows a student’s choice (as described in the earlier brief issue paper in this volume), and both a quantitative and qualitative system for quality assurance (pp. 20–24). Whether it is the amount or the nature of regulation in British Columbia, the specific regulations that are in place most likely point to the fact that British Columbia also continues to have the most students and the highest proportion of K–12 students engaged in distance education.

	<h2>Newfoundland and Labrador</h2>
Population – 508,990	
Total Area – 405,212 km <sup>2</sup>	
Population Density – 1.26 people/km <sup>2</sup>	
Capital (Population) – St. John's (100,646)	
Number of K–12 Schools – 279 (2010–11)	
Number of K–12 Students – 68,729 (2010–11)	
Number of K–12 Distance Education Programmes – 1	
Number of K–12 Distance Education Students – ~1,000	

Category	Yes/No	Comments
Province-led programme	Yes	
Other distance programmes	No	
Provincial-level policy	No	

## Distance Programmes

K–12 distance education was introduced to the Province of Newfoundland and Labrador in 1988–89, with the delivery of a single advanced mathematics course using a telematics or audiographics delivery system. This program began to be phased out in 2000–01 when the Centre for Distance Learning and Innovation (CDLI) came into existence. The CDLI has been the sole provider of K–12 distance education over the past ten years, increasing its offerings to approximately 45 courses (including six courses delivered in French to the province's French-first language students). During the 2010–11 school year, there were 1,606 enrolments in CDLI courses.

## Governance and Regulation

At present, the CDLI is not a separate school or entity, but rather operates within the Primary, Elementary, and Secondary Branch of the Ministry of Education. It receives a block funding allocation from the provincial Government, which funds the administration, all teacher and staff salaries, course development activities, Internet/network connectivity costs for 110 schools, K–12 technology integration, and some provision learning for the provincial K–12 school system. The CDLI also purchases and deploys all hardware and software required for the delivery of its online learning programme, including all required computer equipment, videoconferencing equipment, and other learning resources that enhance the distance learning experience.

At this time, there is no language in the Education Act related to K–12 distance education. There are also no policies or regulation specifically related to K–12 distance education within the Ministry of Education, beyond those utilized by the CDLI itself. The Ministry of Education continues to track the method of delivery that students complete their studies and these data are available through the K–12 School Profile System.




John Drover has been a teacher for seven years, spending several years at three different schools in the province of Newfoundland and Labrador. His teaching experiences are primarily in mathematics, but he has also taught physics, art, and technology courses. He has taught a variety of distance education courses, also in mathematics.

John is a curriculum developer for the CDLI, where he has designed units for several math courses. He was responsible for developing the course curriculum guides, which he admitted were quite a bit of work. In developing asynchronous courses, John knew that the textbooks for some of the courses were not that great, so he made sure that providing plenty of examples was key to the instruction. John often created two sets of plans of delivery, depending on whether the course instructor wanted to use the textbook. Also, since some of the activities were open-ended investigations, detailed instructions were necessary to avoid confusion, which can be problematic in an asynchronous online environment. John also redesigned several investigations using technology that was available to all students taking the online course.

John's technical skill in designing curriculum using technology has grown since his first experiences in course development. At first, he created content using HTML but eventually

began to use more advanced techniques (e.g., *ActionScript*, *Flash*, animated GIFs) and also incorporated calculator technology, such as Texas Instruments calculators. In addition to his technical skills, John began to improve his curriculum design skills. He admitted that early on, his design simply followed the template for most CDLI courses, with either long sections of text for the student to read or with the instruction to read the textbook and do the problems. John realized that the online lessons needed to be more engaging and interactive in order to better capitalize on the capabilities of the computers that were used in online delivery.

Based on his experience, John feels that courses could be developed in a more efficient manner if a content expert was paired with a programmer. While his skills in both areas developed over time, he felt that becoming strong at one aspect came at the expense of time spent developing the other. Under his proposed system, the developer could spend much more time on the front-end activities of planning the course and selecting appropriate activities, while the programmer could create the materials that would be needed for a particular lesson. John believed that this system would lead to quality online instruction, because the capabilities of the media, when created by a programming expert, can attract, motivate, and engage a student in ways that may not be possible in a traditional manner. In his opinion, students are often distracted and off-task during synchronous session, and are probably not utilizing the computer's capabilities to the fullest extent. John feels, therefore, that even though developing asynchronous courses is a much more difficult task, the advantages to asynchronous instruction far outweigh this difficulty.

	<h2>Nova Scotia</h2> <p>Population – 939,531  Total Area – 55,283 km<sup>2</sup>  Population Density – 16.99 people/km<sup>2</sup>  Capital (Population) – Halifax (372,679)  Number of K–12 Schools – 426 (2010-11)  Number of K–12 Students – 128,131 (2010-11)  Number of K–12 Distance Education Programmes – 5  Number of K–12 Distance Education Students – ~2,450</p>
---	--

Category	Yes/No	Comments
Province-led programme	Yes	
Other distance programmes	Yes	
Provincial-level policy	Yes	Included in the Provincial Teachers' Agreement

## Distance Programmes

There is only one online learning programme in the province, the Nova Scotia Virtual School (NSVS). Beginning in 2011–12, the Ministry consolidated funding for the NSVS so that all courses are now offered by the province and not the individual school boards. Teachers of NSVS courses are employed by the school boards throughout the province and are supervised within their own school boards. The *Conseil scolaire acadien provincial* (CSAP)—the pan-provincial school board for French-first language students—uses a separate videoconferencing system and the two online platforms used by the English school boards. CSAP also has a sharing arrangement for online programming from the Province of New Brunswick. There have been approximately 650 students per year enrolled in the NSVS from the eight English-speaking school boards and the CSAP. There is also a correspondence study programme (CPS) that the Ministry is currently transitioning to an online delivery format. At present, there are approximately 1,800 students and 2,200 course enrolments in CSP. Approximately half of the students are also attending a public school; the others are adult students or students who live outside of the province. Finally, there is a new private online programme – the Virtual High School (Nova Scotia), which was started in August 2009 by the Virtual High School (Ontario).

## Governance and Regulation

Learning Resources and Technology Services, a division of the public schools branch of the Department of Education, manages distance education programmes in Nova Scotia. There is currently no legislation specifically related to K–12 distance education in Nova Scotia; however, there are 11 provisions included in the agreement between the Government of Nova Scotia and the Nova Scotia Teachers' Union. As a contract between the Government and the teachers' union, most of the provisions deal with teacher certification and quality of life issues. For example, there are provisions related to defining the work day, professional development requirements, program oversight, class size, and management of the distance programs. Given the changes with the NSVS, additional regulation is expected in the next one to three years.

Tommy Chisholm is starting his twenty-third year of teaching, the vast majority of which has been spent inside a classroom. However, for the past thirteen years, he has also been developing and teaching online courses for the Strait

Regional School Board through their virtual school programme.

The Strait Regional School Board delivers their courses through the Nova Scotia Virtual School (NSVS), which is offered by the Nova Scotia Department of Education.

At present, Tommy teaches courses in law, accounting, and entrepreneurship, which are currently delivered through Moodle. He finds the platform quite dynamic, allowing him to integrate a variety of learning strategies to accommodate learner needs. Tommy is also in the process of developing a couple of history courses. Many of the skills he uses to create these courses, he gained by completing an online diploma program in Educational Technology in 2005, through the University College of Cape Breton.

Tommy believes that online teaching has extended his classroom beyond his wildest expectations. Back in 1998, he felt some trepidation when asked to develop and deliver programmes virtually. As a self-described high-energy, student-centered teacher, he felt a little nervous about teaching online. However, after three years and three different online teaching platforms, he has found that this energy can be extended virtually, and his joy of teaching is still very much alive. Students from as far abroad as Argentina and the United States, along with students in Quebec, have enrolled in Tommy's courses. During one semester, he was teaching students from 20 different high schools.

According to Tommy, "The learner of today is very comfortable with technology and the online structure." Students adjust quickly, and it



has been Tommy's experience that they will ask more questions than in a traditional classroom setting. He speculates that perhaps the online setting allows the otherwise shy student to become more engaged with the teacher. It could also be the "anytime" nature of online learning, as it is not unusual to have discussions about lessons at night or on the weekend.

The students also seem to enjoy the flexibility of the online classroom. Tommy has regular group chats in his courses, where students are given the opportunity to discuss issues with their peers, who may be hundreds of kilometers away. The entrepreneurship and accounting are two courses that many schools in smaller districts cannot offer. The virtual school has really leveled the playing field for many of the students who otherwise would not be able to take these courses.



## Prince Edward Island

Population – 140,402  
 Total Area – 5,684 km<sup>2</sup>  
 Population Density – 24.7 people/km<sup>2</sup>  
 Capital (Population) – Charlottetown (58,625)  
 Number of K–12 Schools – 63 (2010-11)  
 Number of K–12 Students – 21,126 (2010-11)  
 Number of K–12 Distance Education Programmes – 1  
 Number of K–12 Distance Education Students – 66

Category	Yes/No	Comments
Province-led programme	Yes	Video conferencing
Other distance programmes	Yes	Programmes from other provinces
Provincial-level policy	Yes	

## Distance Programmes

The majority of K–12 distance education in Prince Edward Island is provided through an inter-provincial agreement that provides students the ability to access online courses offered by the New Brunswick Ministry of Education. During the 2010–11 school year, there were 21 French-language students and 43 English-language students enrolled in 12 online courses. The Ministry also supports a videoconferencing distance education programme that is currently used by the province-wide French-language school board. The videoconferencing programme has been declining in recent years, in favour of the online option described above. For example, during the 2010–11 school year, there were only two students enrolled in a single course offered through this system.

## Governance and Regulation

There is no mention of distance education in the provincial Schools Act. However, in 2001 the Ministry of Education issued Ministerial Directive No. MD 2001-05, which established guidelines for the use of distance education within the K–12 system. These provisions were superseded in August 2008 by Ministerial Directive No. MD 2008-05, which applies only to courses delivered during the regular school day, broadly defines distance education, and outlines a series of beliefs about the nature of distance education instruction. For example, personal interaction between teachers and students is fundamental to the teaching and learning process, and that teacher education programs should include instruction in distance education policies, programs, and instructional strategies. Additionally, it states that teachers must be Canadian certified, students must be supervised at their local school while engaged in distance education, and distance education and supervisory teachers should have those duties considered as part of their regular load.



## New Brunswick

Population – 748,319

Total Area – 72,908 km<sup>2</sup>

Population Density – 10.26 people/km<sup>2</sup>

Capital (Population) – Fredericton (50,535)

Number of K–12 Schools – 321 (2010-11)

Number of K–12 Students – 104,421 (2010-11)

Number of K–12 Distance Education Programmes – 2

Number of K–12 Distance Education Students – 1,841

Category	Yes/No	Comments
Province-led programme	Yes	One English / One French
Other online programmes	No	
Provincial-level policy	Yes	Policy documents

## Distance Programmes

There are two online learning programmes in New Brunswick, one for the Anglophone school system and one for the Francophone school system, both of which use the same Ministry-hosted learning management system (LMS). The majority of distance education enrolments in the province are from supplemental students (i.e., students enrolled in a brick-and-mortar school who are taking one or more courses at a distance). Over the past two years, there has been a decline in the number of students who are enrolled in distance education in New Brunswick, which is reflective of the fact that the Ministry had to reduce the number of distance education courses offered because of the financial context. The Ministry also allows classroom teachers to use online courses with their face-to-face students. These students comprise approximately 40% of the student enrolments in the provincial LMS.

## Governance and Regulation

There remains no specific legislation that governs K–12 distance education in New Brunswick, and the system continues to operate based on collaboration between the Ministry of Education and individual school districts, using a Ministry-published policy handbook. The policy handbook outlines in a very specific fashion the responsibilities of a variety of individuals at the Ministry, district, and school level to ensure the orderly implementation of the distance education programme. Interestingly, in addition to school officials such as a registrar and local site facilitator, there are specific responsibilities outlined for both distance education students and parents of students who are enrolled in distance education.



Rothesay High School is one of two high schools that serve the Kennebecasis River Valley area—a bedroom community 10 minutes outside the city of St. John, New Brunswick. The school has a student body of approximately 650 and a teaching staff of 42, along with 17 teaching assistants, 1 library staff, 1 administrative assistant, and 4 custodial staff. The school has 2 computer labs and 1 mobile cart with 14 notebook computers.

Eric Copeland is a technology teacher at Rothesay High School. He teaches an introductory electronics course and a course in computer technology support. While teaching these courses, Eric must also supervise students who are taking online courses. Eric has two periods a day where he has online students. During this time, he sometimes has 15 to 20 students taking different courses. Computers are set along the walls of the classroom and moveable student desks in the middle to allow for both individual and group work to take place offline. Most of these courses tend to be technology related, such as information technology, computer-aided drafting, digital technologies, and computer science. These students work independently.

Because of the hands-on nature of technology courses, students cannot always complete activities while sitting in front of a computer. Many of the offline activities involve working with electronic equipment, such as multimeters and equipment for constructing circuits. Online work would involve instructional activities on programming, graphic design, and networking. When the online students complete their assignments, they submit them to their online teacher via a drop box in the learning management system.

The students also complete their tests online. When the students are ready to take a test, they inform Eric so that he can enter a necessary

password into the system to allow them to access the test. Having it set up in this manner allows Eric access to the content from online courses, which he can use to supplement his own face-to-face content.



During these same two periods, Eric also has face-to-face students for the introduction to electronics and technology support courses. These courses were once offered online but are no longer accessible to students. However, they remain open to teachers to access the content for face-to-face courses at their respective schools, which allows teachers to use established materials while also allowing for modifications to meet the particular needs of their students.



## Quebec

Population – 7,907,375<sup>6</sup>

Total Area – 1,542,056 km<sup>2</sup>

Population Density – 5.13 people/km<sup>2</sup>

Capital (Population) – Quebec City (754,358<sup>7</sup>)

Number of K–12 Schools – 2,766 (2006-07)<sup>8</sup>

Number of K–12 Students – 949,350 (2006-2007)

Number of K–12 Distance Education Programmes – 3

Number of K–12 Distance Education Students – ~30,000

Category	Yes/No	Comments
Province-led programme	No	All three distance education programmes are provincial in scope
Other distance programmes	Yes	
Provincial-level policy	No	

## Distance Programmes

The first distance education programme established in Quebec in 1946 was a correspondence school for vocational education. This programme was expanded several times and eventually became the *Société de formation à distance des commissions scolaires du Québec* (SOFAD) in April 1996. SOFAD is a not-for-profit organisation tasked with the development and production of the distance learning materials that the school boards use in their own district-based programmes for adult students (i.e., students who have reached the age of 16 before July 1 of the current school year). The second distance education programme began in the 1999–2000 school year, when three English-speaking school boards initiated the Distance Education and Community Network. This programme grew to include all nine English-speaking school boards and became Learn Quebec in 2006, which provides a variety of distance learning resources to English-language students. Then in 2002, the Quebec Ministry of Education funded the *Écoles éloignées en réseau* or Remote Networked Schools (RNS) initiative. Although one of the initial goals of the RNS initiative was to provide distance education to K–12 students, that goal has not been fully realised. To date, the RNS has focused on teacher professional development and technology integration projects.

## Governance and Regulation

The Education Act in Quebec makes no reference to distance education, as the school boards have held the primary responsibility for distance education since 1995. Policies and regulations related to K–12 distance education also appear to be at the district level.

6 Institut de la statistique du Québec (2010). Le bilan démographique du Québec. Édition 2010, 91 p., p.18.

7 André, Dominique (2011). « Un bref regard sur l'évolution démographique des municipalités du Québec depuis 2000 », Coup d'œil sociodémographique, Institut de la statistique du Québec, no 8, 5 p.

8 Ministère de l'Éducation, du Loisir et du Sport (2008). Statistiques de l'éducation, Édition 2008.

The *Centre francophone d'informatisation des organisations* (CEFRIO) is a network centre that assembles over 150 university, industrial, and government members. Its mission is to help Québec organizations use information technologies with a view to enhancing efficiency, productivity, and innovation. CEFRIO conducts research and strategic intelligence projects focusing on the integration of the information technologies. These projects cover all sectors of the Québec economy. One of the CEFRIO's on-going projects is the Remote Networked Schools (RNS), an initiative of the Québec Ministry of Education, Leisure and Sports (MELS) to investigate solutions to the problem of small class sizes in elementary and secondary schools. Small class size reduces interactions between students, but also interactions between students of the same age. Thus, the issue of vitality and pedagogical feasibility of these schools proves even more critical.

Implemented at the time that optical fibre (connectivity) was being deployed on the Québec territory, RNS postulated that networking could enrich these schools' educational environment. An innovative approach, combining online videoconferencing in classrooms with a writing tool (electronic forum), has been experimented with since 2002 in approximately ten schools. This was not distance learning, but a totally new approach, in which students and teachers from remote school classrooms interacted and collaborated. Currently, 23 school boards (nearly one hundred schools) are committed to RNS in Québec, among which the great majority are at the elementary level.


From the first year, it was the teachers who "invented" networking practices, with the help of classroom videoconferencing and the knowledge forum and supported by CEFRIO researchers. To date, the experimentation of



networking in rural area classrooms has proved relevant, not only for student learning and their motivation, but also for providing major benefits toward professional development for isolated teachers, who view RNS as a means to break their isolation and develop their ICT competency, as well as all professional competencies determined by the MELS.

The rural school's vitality and quality greatly contribute to the occupation and development of Quebec's territory. With the technologies and networking that are now available, it is possible to imagine a different mode of functioning for these schools and thus a way to counter demographic effects. The RNS experience constitutes an attractive potential solution to meet the challenge of offering quality educational services in rural communities.

Within this context, RNS's pedagogical model is a privileged means to ensure the consolidation of small schools in Québec, whose specific character relies on the use of networked learning practices and technologies in classrooms—modes of functioning that are customized or even standardized. In fact, CEFRIO's vision, also shared by several school board administrators, is that by adopting the RNS model, the rural school can be completely in line with the 21st century competencies that are sought-after in education. By further implanting the model in these schools, we are striving to make them attractive and modern, in spite of their small size.

	<h2>Ontario</h2> <p>Population – 12,986,857  Total Area – 1,076,395 km<sup>2</sup>  Population Density – 12.07 people/km<sup>2</sup>  Capital (Population) – Toronto (2,503,281)  Number of K–12 Schools – 4,931 (2009-10)  Number of K–12 Students – 2,061,390 (2009-10)  Number of K–12 Distance Education Programmes – 75  Number of K–12 Distance Education Students – ~50,000</p>
---	--

Category	Yes/No	Comments
Province-led programme	No	
Other distance programmes	Yes	Both public and private
Provincial-level policy	Yes	

## Distance Programmes

At present, all 60 English-speaking and 12 French-speaking school boards offer some form of K–12 distance education. Many of these school boards have come together to form consortium, designed to allow its school board members to work together to maximise their online offerings by sharing course offerings, resources, and students. The first consortium among the English-speaking school boards was the Ontario eLearning Consortium (OeLC) formed in 2001, which currently has 20 member school boards. The Ontario Catholic eLearning Consortium (OCeLC) was formed in 2009–10 and includes all 29 Catholic school boards in the province. In 2010, the Northern e-Learning Consortium (NeLC) was created to allow the school boards in Northern Ontario to work together on shared challenges. It currently has four members. Since 2001, the 12 French-language school boards in the province have also cooperated, and in 2009, they created the *Consortium d'apprentissage virtuel de langue française de l'Ontario*.

Along with the distance education offered by these public school boards, Television Ontario (TVO) manages the Independent Learning Centre (ILC). The ILC is a mandated Government of Ontario distance education provider of high school credit courses, high school diploma and GED High School Equivalency Certificate opportunities to adolescent and adult students throughout the province. At present, the ILC has approximately 18,500 students enrolled in courses. However, school boards are responsible for the delivery of e-learning, including programme direction, hiring staff, registering students, teaching students, and granting credits.

In addition to the public school offerings, there are three private K–12 online learning programmes: Virtual High School (Ontario), Ottawa Carleton e-School, and Keewatinook Internet High School. The most recent data available indicated that there were approximately 5,000 students enrolled in private online schools (i.e., VHS(O) = 3,334; OCeS = 1,340; and KiHS = 170).

## Governance and Regulation

There is no mention of distance education or online learning in the *Education Act* in Ontario. However, based on the feedback that the Ontario Ministry of Education received from school boards, the *Provincial E-Learning Strategy* was launched in February 2006, with 11 pilot school boards, and has grown to include all 72 of Ontario's school boards. The French component of the strategy, *Apprentissage électronique Ontario*, was launched in September 2007. The strategy was guided by the vision of an Ontario where students have unlimited opportunities to learn and achieve at a high level within an ever-changing digital world.

As part of this vision, the Ministry is responsible for providing school boards with the various supports (e.g., LMS, course/resource development, professional development, policies and guidelines) necessary to provide students with e-learning opportunities. The Ministry is also responsible for providing e-learning leadership within the provincially funded school system in such areas as blended learning, online pedagogy, and development of digital content. School boards are responsible for the delivery of e-learning, including programme direction, hiring staff, registering students, teaching students, and granting credits.

School boards participating in the provincial e-learning strategy have access to:

- Provincially licensed LMS: an online learning environment
- Ontario Educational Resource Bank (OERB): an online learning object repository
- E-Community Ontario: an online community of practice to be used by members of the provincially funded educational community
- Seat Reservation System (SRS): an online system that enables school boards to share seats in online courses across the province

All components of the strategy are available in English and French, with the exception of the SRS (which is provided to French-language students through the *Consortium d'apprentissage virtuel de langue française de l'Ontario*).

In June 2011, the Ministry announced additional support for the provincial e-learning strategy, including the ability of school boards to use the LMS tools for blended learning. The Ministry's e-Learning Ontario unit will be working with school boards in the fall to plan the roll out of blended learning. It is anticipated that over the next three years, students from Kindergarten to grade 12 will be able to access the LMS.

Also starting in the fall of 2011, all 600,000 English-language math students in grades 7 to 10 have access to live, interactive online math help through the expansion of a pilot project funded by the Ministry of Education. Homework Help is offered through TVO's Independent Learning Centre and features free, real-time math tutoring by certified Ontario teachers. Homework Help began as a pilot programme at Hamilton-Wentworth Catholic DSB and Hamilton-Wentworth DSB in 2007–08. It has now expanded to all 60 English-language school boards across Ontario.

The French-language equivalent of Homework Help is *SOS DEVOIRS*, which was introduced in 2000 by the *Conseil scolaire Centre-Sud-Ouest* (now called *Conseil scolaire Viamonde*) and is hosted by TFO. *SOS DEVOIRS* offers tutoring services to students in French-language schools in grades

1 through 12. A website and online library, online chatting and call centre staffed by qualified teachers, and additional resources are available through *SOS DEVOIRS*. Through service purchase agreements, other provinces working in Francophone minority settings also have access to the *SOS DEVOIRS* services (Nova Scotia, New Brunswick, Saskatchewan, Alberta, Yukon, Northwest Territories, and Nunavut). Since its establishment, demand has continually increased. Currently, 15,000 users are registered with the website.

To support English-language school boards with the implementation of programmes like Homework Help and blended learning, as well as the use of Ministry-provided digital resources, the ministry will also provide funding for one eLearning Contact (eLC) per school board for the 2011–12 school year. The purpose of the eLC position will be to ensure that there is coordination and leadership in school boards for the implementation of the provincial e-learning strategy, blended learning, Homework Help, and the distribution of digital resources and tools provided by the Ministry. The French-language school boards also receive funding to support implementation of blended learning, the use of *SOS DEVOIRS*, and Ministry-provided digital resources.

As part of the provincial e-learning strategy, students may enrol in an e-learning course that is offered by another school board, provided they do so through their home school. In such a situation, the applicability of provincially established fees for students taking e-learning courses from a school in another school board shall be worked out locally between the two school boards. Where it is agreed that fees are appropriate, the fee is the amount established by the Ministry. This fee will be posted on the e-Learning Ontario website. For 2011–12, the fee is \$725. Students enrolled in e-learning courses will not be charged any fees, including fees for registration, materials, or administration. The students' costs are covered by the Ministry when the school board places these students on the appropriate funding register.



## Manitoba

Population – 1,213,815

Total Area – 649,950 km<sup>2</sup>

Population Density – 1.87 people/km<sup>2</sup>

Capital (Population) – Winnipeg (633,451)

Number of K–12 Schools – 684 (2010-11)

Number of K–12 Students – 179,975 (2010-11)

Number of K–12 Distance Education Programmes – 38<sup>9</sup>

Number of K–12 Distance Education Students – ~9,000<sup>10</sup>

Category	Yes/No	Comments
Province-led programme	Yes	
Other online programmes	Yes	Uses province learning management system and course content
Provincial-level policy	Yes	Currently under review

## Distance Programmes

Distance learners continue to be supported with three options: Independent Study Option (ISO), Teacher Mediated Option (TMO), and Web-Based Course (WBC) Option. The Ministry of Education, or Manitoba Education, is directly responsible for the ISO and TMO distance education options. The ISO provides school-age and adult learners access to print-based distance learning courses from grades 9 to 12. The TMO provides school-age and adult learners access to grades 9 through 12 print-based distance learning courses, supplemented with audio teleconference classes hosted by an instructor at scheduled times during the school day. The WBC Option provides schools and teachers access to the online courses developed by Manitoba Education, along with use of the provincial LMS, to manage their own online or blended learning programs. In the 2010–11 school year, there were approximately 2,565 enrolments for ISO, 400 for TMO, and 6,000 for WBC. Overall, there were about 9,000 distance education enrolments.

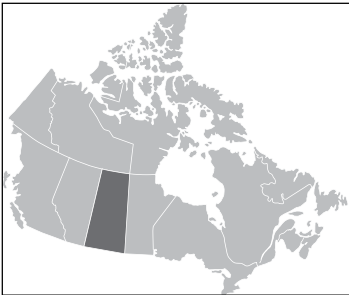
## Governance and Regulation

The only reference in the Public Schools Act regarding distance education is that the Minister of Education can approve courses of study, including correspondence and other courses. Manitoba Education has issued other regulatory and policy documents, along with handbooks for each of the three distance learning options. Manitoba Education has been in the process of reviewing policies related to distance learning that were originally written in 2000. The Distance Learning Unit and the Learning Support & Technology Unit of Manitoba Education are working on renewal of the policy documents so they better reflect the current situation in Manitoba.

<sup>9</sup> In theory, each school division is participating in one or more of the Ministry's options.

<sup>10</sup> This represents the number of student enrolments and not necessarily the number of students.



	<h2>Saskatchewan</h2> <p>Population – 1,023,810  Total Area – 651,900 km<sup>2</sup>  Population Density – 1.57 people/km<sup>2</sup>  Capital (Population) – Regina (179,246)  Number of K–12 Schools – 708 (2010-11)  Number of K–12 Students – 159,465 (2010-11)  Number of K–12 Distance Education Programmes – 28  Number of K–12 Distance Education Students – 3,285</p>
---	--

Category	Yes/No	Comments
Province-led programme	Yes	Some print-based delivery
Other online programmes	Yes	
Provincial-level policy	No	

## Distance Programmes

Historically, Saskatchewan has had a system of K–12 distance education much like Manitoba, where the Ministry was responsible for the delivery of courses online, televised via satellite, and print-based. However, in 2009–10, the Ministry devolved the responsibility for distance education to the school divisions, as the Ministry had worked extensively to ensure that teachers, schools, and school divisions were able to build their own capacity to provide distance learning. In 2010–11, most of the 28 school divisions were operating some sort of distance education programme. Sixteen of these programmes also provided courses or spaces to students outside of their own school through the Saskatchewan Distance Learning Course Repository. During the 2010–11 school year, there were 4,497 course enrolments from 3,285 distinct students. At present, students can enroll in any one of 98 courses that are available in print-based, blended, online asynchronous, online synchronous, and televised synchronous formats.

The Ministry undertook considerable work in 2009–10 to ensure that print delivery continued to be available for students who could not, for whatever reason, access courses online.

## Governance and Regulation

The only reference to distance education in the *Education Act* is related to the Technology Supported Revolving Fund, which indicates that it is to be used “to provide educational courses to all areas of Saskatchewan through the use of distance education technology.” This section is no longer relevant with the devolution of distance education services from the Ministry.

However, as noted above, the Ministry of Education still tracks the number of students and enrolments in courses offered at a distance as a part of their provincial data collection strategy.



The Saskatoon Catholic Cyber School (SCCS) is a distance education and educational technology resource programme. It has offered asynchronous high school credit courses via the Internet since its inception in 2000. SCCS currently offers 47 high school courses and is developing more courses every year, as well as curriculum and web supports for students and teachers. The SCCS has also been involved in many innovative projects that have had an effect, not only on our school division, but also on divisions around the province. One of these initiatives is the Saskatchewan Distance Learning Course Repository.

In an effort to provide structure to distance education programmes in Saskatchewan, a distance education course hub was developed so that students could have a single listing of the distance education courses offered by all school divisions in the province. This hub is also a provincial registration portal for distance education courses.

Since this cyber school had all of the supports in place to host the provincial distance education course hub, as well as provide a free and proven registration portal, it seemed sensible to create such an area for all school divisions to access.



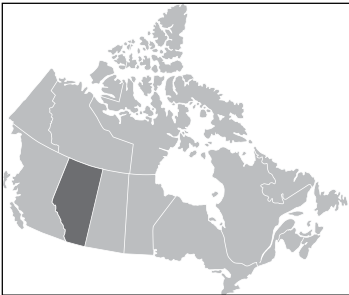
By using a blog system to create the course hub, authors from every school division have the ability to add, edit, and remove their distance education courses at any time. This system is easy



to use and does not require authors to have any previous knowledge of website coding. The blog allows users to search a variety of different options and allows students to register directly from the site. This blog system also allows school divisions to host their own website that would reflect their logo and colours and provide pertinent information specific to their courses and registration system as a central administrative hub for the province with the ability for each school division to manage its own distance education offerings.

At present, there are 17 different programmes using the Saskatchewan Distance Learning Course Repository. This represents well over half of the school divisions in the province that have built their own K–12 distance education programmes.

The SCCS feels that the Saskatchewan Distance Learning Hub serves a great purpose in the province of Saskatchewan in that it provides school divisions with free and total access to populate and edit their online course offerings. For students looking for online courses, it would operate as a "one stop shop," to help provide them with the information they need to make an informed decision that best suits their educational needs.

	<h2>Alberta</h2> <p>Population – 3,632,483  Total Area – 661,848 km<sup>2</sup>  Population Density – 5.49 people/km<sup>2</sup>  Capital (Population) – Edmonton (730,372)  Number of K–12 Schools – 2,128 (2009-10)  Number of K–12 Students – 585,397 (2009-10)  Number of K–12 Distance Education Programmes – 16  Number of K–12 Distance Education Students – 21,339</p>
---	--

Category	Yes/No	Comments
Province-led programme	No	
Other online programmes	Yes	
Provincial-level policy	Yes	Additional legislation has been introduced

## Distance Programmes

At present there is a single province-wide programme administered by the Pembina Hills Regional School Division, the Alberta Distance Learning Centre (ADLC). ADLC offers courses in a variety of formats (e.g., print, online, and blended formats) and also manages the Vista Virtual School and *Centre francophone d'éducation à distance*. In 2010–11, the ADLC had 9,756 students enrolled in one or more courses at the secondary level and approximately 4,700 students enrolled in grades 1 through 9.

In addition to this province-wide programme, there are also a series of district-based programmes, supported by the various public and Catholic school districts in the province (Alberta has Catholic school districts that are publicly funded). These include Argyll Centre, Aspen View Virtual School, Battle River Online, Buffalo Trail Students Online, Golden Hills Virtual School, Holy Family Cyber High School, Innovative Learning Services, InterEd, Peace Academy of Virtual Education, Revelation Online, Rocky View Virtual School, School of Hope, St. Gabriel Cyber School, and St. Paul's Academy Centre for Learning@Home, among others. These district-based programmes accounted for an additional 6,883 students.

Lastly, there is an Aboriginal-focused online school: SunChild E-Learning Community.

## Governance and Regulation

At present, the *School Act* grants the Minister of Education the authority to make regulations with respect to public and private distance education programmes. The Ministry has yet to exert that authority beyond outlining some specific requirements primarily related to the amount of required instructional time as a part of their annual *Guide to Education*. That same document also advises school authorities that wish to undertake distance education programmes that they will need to

consider how to define, accommodate, or manage things like attendance, the role of the parents, staffing, workload issues, instructional support, student evaluation, delivery formats, technical support, delivering standardized exams, and non-resident students, etc.

In June 2010 the Ministry released *Inspiring Action on Education*, outlining the policy directions within the broader context of provincial government strategies and initiatives aimed at building a stronger future for Alberta. *Inspiring Action on Education* established a discussion framework for the vision, values, principles, and policy directions for transforming Alberta's education system. Feedback was sought regarding whether the directions were on the right track for transforming the education system. In *Inspiring Action on Education*, digital technologies are viewed as tools to enable different ways of learning and in transforming student learning experiences by doing things that would not be possible in classrooms using traditional learning tools. As a part of the consultant process, the Ministry produced a series of Transformation Guides in the areas of Parental and Community Engagement, Shared Governance, Student-Centred Education, Learning Opportunities, Teaching our Children, and Envisioning Excellence, to allow for public feedback from June to October 2010, along with a survey to generate additional input from the public. Based on that feedback, the Ministry generated reports on each of these topics and a report summarising the survey responses; those reports were made public in December 2010. At present, this initiative to transform education in Alberta appears to have been included in the Government's Spring 2011 legislative agenda.

This past April, the Government introduced an education bill that did not specifically mention distance or distributed learning programmes, but included this text in its preamble:

WHEREAS the Government of Alberta recognizes the importance of enabling high quality and socially engaging learning opportunities with flexible timing and pacing through a range of learning environments to meet diverse student needs and to maximize student success;

WHEREAS the Government of Alberta is committed to providing choice to students in education programs and methods of learning;

While this is not an indication that the Government plans to increase the amount of online and blended learning that is occurring in the province, Alberta is the only province to have legislation that authorises the operation of charter schools and the only province where K–12 distance education is flourishing in the absence of any real regulation or governance of the delivery model. This legislation, along with the vision presented in the *Inspiring Action on Education* policy document, could indicate a greater push toward these online and blended learning alternatives.



## British Columbia

Population – 4,419,974  
 Total Area – 944,735 km<sup>2</sup>  
 Population Density – 4.68 people/km<sup>2</sup>  
 Capital (Population) – Victoria (78,057)  
 Number of K–12 Schools – 1,953 (2010-11)  
 Number of K–12 Students – 649,952 (2010-11)  
 Number of K–12 Distance Education Programmes – 68  
 Number of K–12 Distance Education Students – 88,000

Category	Yes/No	Comments
Province-led programme	Yes	LearnNowBC online portal
Other online programmes	Yes	54 public and 14 independent (private)
Provincial-level policy	Yes	School Act, Sections 3.1 & 75 (4.1) Distributed Learning Policy Independent School Act, Section 8.1

## Distance Programmes

At present, there are 54 district-level public distributed learning schools and 14 independent (or private) distributed learning schools. LearnNowBC is a web portal and single point of entry to information about distributed (online) learning in British Columbia for students, parents, and educators. In 2010–11, there were approximately 88,000 unique students enrolled in one or more courses through distributed learning in British Columbia. Additionally, Open School provides provincial content and online hosting services to school boards that do not have the capacity or desire to manage their own on a cost-recovery model.

## Governance and Regulation

There have been few changes to the governance and regulation of distributed learning. The legislative language in the *School Act, 2006* allows for a student who is engaged in distributed learning to enrol in educational programmes that fall under multiple jurisdictions or Boards of Education (section 3.1), and that any school district wishing to establish a distributed learning school can do so “only with the prior agreement of the minister” (section 75, 4.1)). The Independent School Act contains similar language concerning the establishment of distributed learning schools “only with the prior agreement of the minister” (section 8.1). As such, these agreements between the Ministry and the school districts or independent schools, combined with policy, serve as the main governance documents for distributed learning in British Columbia.

In addition to these agreements, the Ministry also has a series of policy documents that outline the regulations that distributed learning schools must follow. Links to all of the policy documents, along with the general agreements between the Ministry and school districts are available on the Ministry’s website ([http://www.bced.gov.bc.ca/dist\\_learning/](http://www.bced.gov.bc.ca/dist_learning/)).



## Yukon

Population – 33,442  
 Total Area – 482,443 km<sup>2</sup>  
 Population Density – 0.07 people/km<sup>2</sup>  
 Capital (Population) – Whitehorse (22,898)  
 Number of K–12 Schools – 28 (2009-10)  
 Number of K–12 Students – 2933 (2009-10)  
 Number of K–12 Distance Education Programmes – 1  
 Number of K–12 Distance Education Students – 95

Category	Yes/No	Comments
Territory-led programme	Yes	Videoconferencing
Other online programmes	No	Uses programmes from other provinces
Territorial-level policy	Yes	

## Distance Programmes

Since 2004, the Yukon has maintained a territory-wide videoconferencing programme. The Department of Education has deployed videoconferencing suites to all rural communities and to several Whitehorse schools. Videoconferencing allows for schools to take advantage of teaching specialists in neighboring community schools. During the 2010–11 school year, there were three courses offered through this videoconferencing programme: Mathematics 9, Science 10, and Physics 11. A total of 15 students from four community schools enrolled in one or more of those courses. This was an increase from previous years, when there was a single student enrolled in 2009–10 and four students enrolled in 2008–09.

In addition, the Government of the Yukon has entered into agreements with a variety of course content providers in British Columbia and Alberta. During the 2010–11 school year, there were 80 students enrolled in one or more of 29 different courses offered by programmes authorized to operate in the Yukon through these agreements.

## Governance and Regulation

There have been no changes to the governance and regulation of K–12 distance education in the Yukon. The *Education Act, 2002* still allows the Minister of Education to provide distance education courses and to charge fees for students to access those courses. However, the 2003 decision to provide these distributed learning courses at no cost to students up to the age of 21 continues to be followed.

The Department of Education also continues to govern the operation of individual distance education programmes in the Yukon through the individual Memorandums of Understanding it signs with each programme.

The Yukon is the most western and also the smallest of Canada's three territories. It follows the same curriculum as the Province of British Columbia, with some additions to address their distinct language and culture. Recently, Statistics Canada reported that the Yukon was the most connected educational jurisdiction in Canada, with a student-to-computer ratio of 2.9 to 1.



Since 2004, the Yukon has maintained a territory-wide videoconferencing programme. The Department of Education has deployed video-conferencing suites to all rural communities and to several Whitehorse schools. Videoconferencing allows schools to take advantage of teaching specialists in neighboring community schools. During the 2010–2011 school year, there were three courses (mathematics, science, and physics) being offered locally by videoconferencing to 13 students in four community schools (up from one student in 2009–2010 and four students in 2008–2009).

In February 2010, a single grade 8 student at Nelnah Bessie John School in Beaver Creek began taking her science 8 course using the videoconferencing system. She was one of only four students in her rural K–9 school. There

were 22 other students in her science 8 class who were enrolled at Porter Creek Secondary in Whitehorse (a 450-kilometre or six and one-half-hour drive away). When asked about her experiences, she wrote, "I started taking science 8 through videoconferencing at the beginning of February. I was matched with a science 8 class at Porter Creek Secondary School. My teacher is Mr. Brown. When I first started it was weird because I wasn't used to bigger classes. But each time it gets a little easier. I can use camera control to see all around the classroom and zoom in on Mr. Brown when he's teaching. Mr. Brown makes science fun and interesting. He takes time to talk one-on-one with me. He faxes tests/quizzes/notes to me so that I am involved in the class. The students are friendly and supportive. They try to interact with me and make me feel welcome. I have really enjoyed learning about science. I now think science can be fun. Some labs and activities I do miss because I am not there in person. That can be difficult, but there are more benefits than negatives to taking a course this way. I would like to take more classes using videoconferencing. I feel I will adjust easily and quickly to school in Whitehorse when I move in grade 10. This is helping me prepare for the workload, class atmosphere, and expectations of a larger school. I would encourage other rural students to take these opportunities."



## Northwest Territories

Population – 42,940  
 Total Area – 1,346,106 km<sup>2</sup>  
 Population Density – 0.03 people/km<sup>2</sup>  
 Capital (Population) – Yellowknife (18,700)  
 Number of K–12 Schools – 49 (2010-11)  
 Number of K–12 Students – 8,576 (2010-11)  
 Number of K–12 Distance Education Programmes – 1  
 Number of K–12 Distance Education Students – 20+

Category	Yes/No	Comments
Territory-led programme	No	
Other online programmes	No	Beaufort-Delta Education Council E-Learning Program and distance offerings from the Alberta Distance Learning Centre (ADLC)
Territorial-level policy	Yes	

## Distance Programmes

The Department of Education, Culture and Employment signed a Memorandum of Understanding (MOU) with the ADLC in 2004 to establish a partnership for providing print-based and online courses to students in the territory. From 2000 to 2005 there were a total of 329 course enrolments, with 106 students who passed their course, 77 who failed, and 146 who withdrew. To increase efficient use of these resources, the government began reimbursing schools only for successfully completed courses. Eventually, to increase accountability and to reflect the school's inherent responsibility to provide appropriate programming, the department placed the full responsibility of online courses on the regional authorities. This funding for distance education ended in June 2010 and, consequently, the Department no longer requires specific data on online course enrolments and completions from district education authorities.

In addition, in many remote communities, distance education is important for providing academic programming to small numbers of secondary students. Some of the individual education councils have begun to create their own distance education opportunities. For example, the Beaufort-Delta has offered synchronous courses in three communities using a *Moodle* platform. These initial efforts have provided opportunities for an additional 18 to 20 students in that part of the territory.

## Governance and Regulation

The *Education Act, 2009* allows various educational bodies to “authorise, supervise and evaluate the use of distance learning programmes in the provision of the education programme” (p. 72). In addition, the MOU outlines the specific responsibilities, duties, and opportunities for both parties. Furthermore, Section 17 of the *Senior Secondary School Administrators’ Handbook* outlines a series of requirements for distance learning.



The Beaufort-Delta Education Council (BDEC) is the most northerly school board in the Northwest Territories, with all eight communities and nine schools located north of the Arctic Circle. The eleven members of the BDEC include the chairperson, representatives from eight communities, and two aboriginal claimant groups of the Beaufort-Delta region in Canada's Western Arctic (Inuvialuit and Gwich'in).

The council, through the chairperson, gives direction to the superintendent of education who in turn, ensures that these directives are implemented by the school staff. The center for the education council in the Western Arctic is Inuvik, Northwest Territories, a community of approximately 3,500 people. From there, direction and support is provided to nine schools located north to the western tip of Victoria Island and south to the confluence of the Mackenzie and Arctic Red Rivers.

### ***BDEC Technology Integration Program Update***

*Taken from the Beaufort-Delta Education  
Council Quarterly Newsletter  
Volume 2, Number 1 – March 2010*

This past September, the E-Learning program started our first online (Internet-based) course. Students in Aklavik and Fort McPherson can now take Science 10 from Samuel Hearne Secondary and still stay in their home community. The students join the class each day through the Internet. Students in the communities can hear and speak to the teacher as if they were standing next to the teacher. Students listen to the teacher, and they can see everything the teacher is writing on the whiteboard through a special software program called *IlluminateLive*.

In February, Biology 20 will be offered as the next online E-Learning course. A total of 19 students started the Science 10 course through



the Internet using a program called Moodle to provide all handouts, videos, quizzes, and resources needed to be successful in the course. The students also traveled to Inuvik three times during the semester to complete hands-on lab assignments. Final exams are starting soon, and so far the midterm marks are looking very promising. Expansion of the E-Learning program to other BDEC schools will begin as soon as upgrades are completed to the Internet connections.

*The material for this vignette was reprinted with permission from Andrew Samoil, IT Teacher Consultant from the Beaufort-Delta Educational Council.*





## Nunavut

Population – 33,413  
 Total Area – 2,093,190 km<sup>2</sup>  
 Population Density – 0.014 people/km<sup>2</sup>  
 Capital (Population) – Iqaluit (7,054)  
 Number of K–12 Schools – 42 (2009-10)  
 Number of K–12 Students – 8,855 (2010-11)  
 Number of K–12 Distance Education Programmes – 0  
 Number of K–12 Distance Education Students – Estimated at 0

Category	Yes/No	Comments
Territory-led programme	No	
Other online programmes	No	Uses distance offerings from the Alberta Distance Learning Centre (ADLC) and other distance learning programs in Alberta
Territorial-level policy	No	

## Distance Programmes

Nunavut does not have any active K–12 distance education programmes; however, the territory has piloted programmes in the past and has indicated that it has plans for future pilot projects.

The Alberta Distance Learning Center (ADLC) continues to provide the majority of distance learning courses to Nunavut secondary students. These courses are largely print-based. Some students will take distance learning courses from other jurisdictions, although those courses need to be approved by the Department of Education as being equivalent in order for the students to receive credit. In examining the enrolment data from the ADLC for September 2011, there appeared to be no students from Nunavut enrolled in distance education courses. This could very well be an indication that there are no students taking distance education courses from the ADLC, although at present the monitoring of such enrolments occurs at the school and regional levels. The Department is currently working on a new information system that will capture this kind of enrolment information as a matter of course when it is implemented.

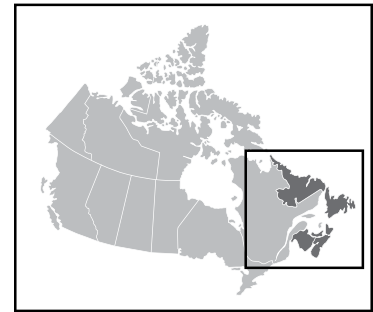
## Governance and Regulation

When it was first created, Nunavut continued to utilise the *Education Act, 1996*, a piece of legacy legislation from the Northwest Territories. This legislation contained a provision that allowed various educational bodies to “authorise, supervise and evaluate the use of distance learning programmes in the provision of the education programme” (p. 58).

This was later replaced when the territory passed its own legislation. The only reference to distance education in the current Education Act, 2008 is a statement that a university providing “distance learning programmes by mail or by electronic means from outside Nunavut to persons in Nunavut” was not considered to be operating in the territory (p. 95).



# Atlantic Canada



Atlantic Canada is the smallest geographic region of Canada, with each of the four provinces being among the smallest in the country. Atlantic Canada is also the only region where there are still strong provincial programmes, with New Brunswick and Newfoundland and Labrador having only a province-wide programme, and Prince Edward Island with a little used province-wide videoconferencing programme. Even Nova Scotia, where the Nova Scotia Virtual School (NSVS) initially acted as a broker for the district-based programmes, has recently moved to further centralise its K–12 distance education offerings through an expanded role for the NSVS and a diminished presence of the individual district-based programmes.

As the province-wide initiatives in these provinces are managed directly by the individual Ministries of Education, there is little legislative oversight in place to govern K–12 distance education. However, three of these four provinces have some form of regulatory regime in place (with Newfoundland and Labrador being the only province without significant regulations).

All of the distance education programmes in Atlantic Canada, with the exception of the Strait Regional School Board Virtual School, participated in this individual programme survey.

**Table 5. K–12 Distance Education Programmes in Atlantic Canada, 2010–11**

Programs	Medium	Students	Teachers	Courses
NEWFOUNDLAND AND LABRADOR				
Centre for Distance Learning and Innovation ( <a href="http://www.cdli.ca">http://www.cdli.ca</a> )	Online	1,606 <sup>1</sup>	35 full-time	38
NOVA SCOTIA				
Chignecto Central Virtual School ( <a href="http://ccvs.ednet.ns.ca/ccvs/">http://ccvs.ednet.ns.ca/ccvs/</a> )	Online	265	3 full-time 1 part-time	13
École virtuelle du Conseil scolaire acadien provincial	Online	32	1 full-time	6
Nova Scotia Correspondence Study Program ( <a href="http://csp.ednet.ns.ca">http://csp.ednet.ns.ca</a> )	Correspondence	~1,700	<sup>2</sup>	41
PRINCE EDWARD ISLAND				
Prince Edward Island Ministry of Education	Videoconference	2	1 part-time	1
NEW BRUNSWICK				
New Brunswick – Anglophone ( <a href="http://nbvhs.nbed.nb.ca">http://nbvhs.nbed.nb.ca</a> )	Online	1,434 / 1,003 <sup>3</sup>	10 full-time 1 part-time	39 / 12 <sup>4</sup>
New Brunswick – Francophone	Online	407 / ~600 <sup>3</sup>	7 full-time 3 part-time	20

(1) This figure indicates enrolments, not the number of students.

(2) The Nova Scotia Correspondence Study Program utilizes markers or graders on an as-needed basis.

(3) There were 1,653 or 407 distance learning students and 1,003 or ~600 blended learning students.

(4) This indicates that there were 39 courses available for distance students and 12 courses available for blended classroom students.

# Central Canada



Central Canada is the most populated region of Canada. In fact, Ontario and Quebec comprise almost two thirds of the population of Canada—approximately 20 million people or 60% of the country’s population (and only about one-quarter of the area of the country). The vast majority of those people, around 17 million, live in the Quebec City to Windsor Corridor – a 1,200-kilometer corridor running along the southern portions of both provinces that connects two ends of one of the main routes of the Via Rail passenger service. The corridor is the most densely populated and heavily industrialised region of Canada. The remainder of both provinces—the northern portions—are less populated and face many of the educational challenges expected in rural areas.

While Quebec has three distance education programmes that are all provincial in scope, Ontario is comprised of district-based initiatives—although most of the districts have joined one or more consortium to allow for regional or provincial cooperation. All three distance education programmes in Quebec participated in the individual programme study, while approximately a quarter of the programmes in Ontario responded.

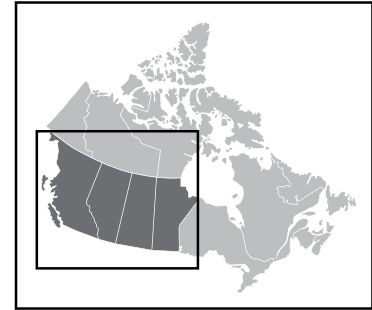
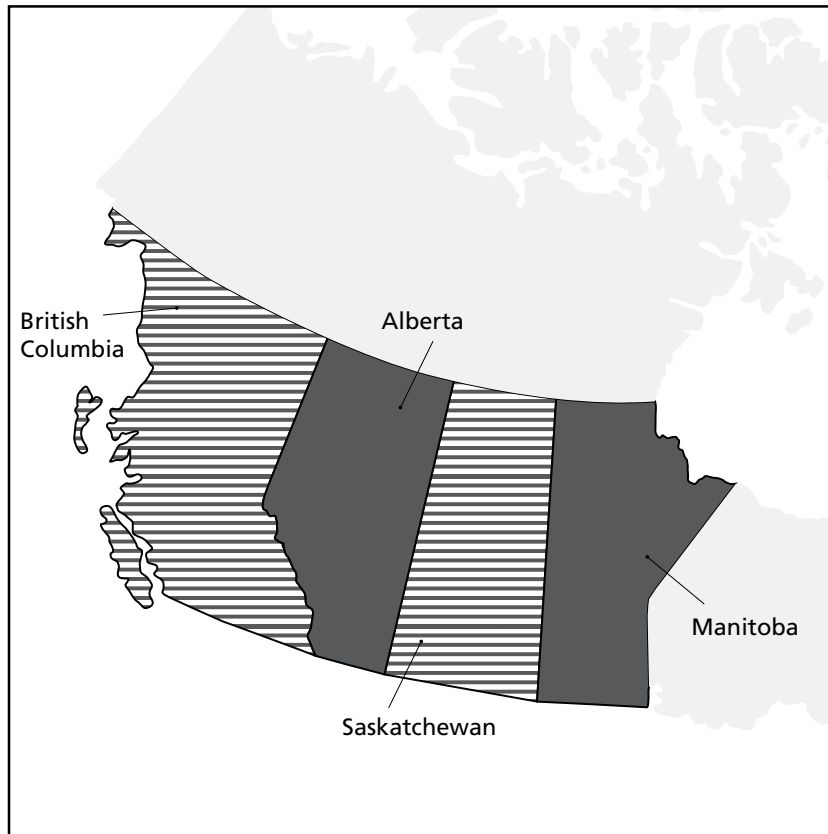
**Table 6. K–12 Distance Education Programmes in Atlantic Canada, 2010–11**

Programs	Medium	Students	Teachers	Courses
QUEBEC				
<i>Société de formation à distance des commissions scolaires du Québec</i> ( <a href="http://www.sofad.qc.ca">http://www.sofad.qc.ca</a> )	Correspondence	27,113 <sup>1</sup>	<sup>2</sup>	365
Learn Quebec ( <a href="http://www.learnquebec.ca">http://www.learnquebec.ca</a> )	Online	300 <sup>3</sup>	5 teachers 8 tutors	12
<i>Écoles éloignées en réseau / Remote Networked Schools</i> ( <a href="http://www.eer.qc.ca">http://www.eer.qc.ca</a> )	Online	~2,000	150 part-time	Complete QC curriculum
ONTARIO				
Algoma District School Board ( <a href="http://www.adsb.on.ca">http://www.adsb.on.ca</a> )	Online	46 750 <sup>5</sup>	14 full-time	125
Bluewater District School Board ( <a href="https://bwdsb.elearningontario.ca/">https://bwdsb.elearningontario.ca/</a> )	Online	120	9 part-time	8
Bruce-Grey Catholic District School Board ( <a href="https://bgcdsb.elearningontario.ca/">https://bgcdsb.elearningontario.ca/</a> )	Online	10	1 part-time	7
<i>Consortium d'apprentissage virtuel de langue française de l'Ontario</i> <sup>4</sup>	Online Videoconference	2,020	16 full-time	67
Grand Erie District School Board ( <a href="http://www.granderie.ca">http://www.granderie.ca</a> )	Online	477	38 part-time	31
Halton District School Board ( <a href="https://hdsb.elearningontario.ca/">https://hdsb.elearningontario.ca/</a> )	Online	275	11 full-time	10
Hamilton-Wentworth District School Board ( <a href="https://hwdsb.elearningontario.ca/">https://hwdsb.elearningontario.ca/</a> )	Online	400	24 part-time	20
Independent Learning Centre ( <a href="http://www.ilc.org">http://www.ilc.org</a> )	Correspondence Online	~18,500	36 developers 45 markers 150 proctors	128
James Bay Lowlands Secondary School Board	Online	1	1 part-time	1
Kawartha Pine Ridge District School Board ( <a href="https://kprdsb.elearningontario.ca/">https://kprdsb.elearningontario.ca/</a> )	Online	1,308	14 full-time	17
Keewaytinook Internet High School ( <a href="http://www.kihs.knet.ca/">http://www.kihs.knet.ca/</a> )	Online	170	16 full-time	53
Lakehead District School Board ( <a href="https://lhbe.elearningontario.ca/">https://lhbe.elearningontario.ca/</a> )	Online	65	3 full-time	3
Limestone District School Board ( <a href="https://ldsbe.elearningontario.ca/">https://ldsbe.elearningontario.ca/</a> )	Online	191	9 part-time	10

Programs	Medium	Students	Teachers	Courses
Northwest Catholic District School Board	Online	85 <sup>5</sup>	3 full-time	3
Peterborough Victoria Northumberland and Clarington Catholic District School Board ( <a href="https://pvncdsb.elearningontario.ca/">https://pvncdsb.elearningontario.ca/</a> )	Online	104	3 full-time	9
Rainbow District School Board ( <a href="https://rdsb.elearningontario.ca/">https://rdsb.elearningontario.ca/</a> )	Online	213	10 part-time	14
Rainy River District School Board ( <a href="https://rrdsb.elearningontario.ca/">https://rrdsb.elearningontario.ca/</a> / <a href="http://moodle.rrdsb.com">http://moodle.rrdsb.com</a> )	Online	106	6 part-time	7
Virtual High School – Ontario ( <a href="http://www.virtualhighschool.com">http://www.virtualhighschool.com</a> )	Online	3,334	57	68

- (1) This is data for the 2009–10 school year; data for the 2010–11 will not be available until late autumn or early winter.
- (2) Teachers are hired by the individual participating school boards and there is no program-wide data available.
- (3) There are also 150,000 enrolments in the LMS for the asynchronous resources and an additional 4,000 enrolments for the synchronous tutorials.
- (4) The Consortium represents 12 individual French-language district school boards. These figures represent the combined totals for all 12 programmes.
- (5) This is the number of students enrolled in blended courses.

# Western Canada



The Western Canada region has the second highest population of any region, including the larger cities Vancouver, Victoria, Calgary, Edmonton, Saskatoon, Regina, and Winnipeg. However, the non-urban areas of each of these provinces—particularly the northern portions—face the same geographic challenges expected in any jurisdiction with a low population density. In the past, all four provinces in Western Canada have had strong centralised K–12 distance education initiatives. British Columbia was the first to move to a more decentralised approach, followed by Saskatchewan in the past year. While Alberta and Manitoba still have active province-wide K–12 distance education programmes, both provinces have significant district-based activity. In Alberta’s case, this has been through the creation of competing district-based programmes, while in Manitoba the provincial initiatives are administered at the district level and a small number of these districts have also developed their own programmes.

The Western Canadian provinces have also been the most active in establishing legislative and regulatory regimes to govern K–12 distance education. British Columbia has led the way in this area, with the longest established and most comprehensive system to manage K–12 distance education. Both Manitoba and Alberta are currently engaged in a consultation process designed to establish new policies to govern K–12 distance education in their jurisdictions. Since the devolution of distance education to the districts, the government of Saskatchewan has not been involved in regulating distance education.

The responses from the distance education programmes in all four Western Canadian provinces to this individual programme study were quite low.



**Table 7. K–12 Distance Education Programmes in Western Canada, 2010–11**

Programs	Medium	Students	Teachers	Courses
MANITOBA				
Beautiful Plains School Division ( <a href="http://webct.merlin.mb.ca">webct.merlin.mb.ca</a> )	Correspondence Audioconference Online	182 <sup>1</sup>	2 <sup>1</sup>	34 <sup>1</sup>
Evergreen School Division	Online	38 <sup>2</sup>	6 part-time	6
Garden Valley School Division	Correspondence	~6	0	2
Lakeshore School Division	Correspondence Online	N/A	N/A	N/A
Mountain View School Division ( <a href="http://www.mvsd.ca">http://www.mvsd.ca</a> )	Correspondence Online Videoconference	115–130 <sup>3</sup>	5***	12+ <sup>3</sup>
Turtle Mountain School Division	Correspondence	~12	0	?
SASKATCHEWAN				
Cornerstone eLearning ( <a href="http://www.ccsmj.ca/elearning/">http://www.ccsmj.ca/elearning/</a> )	Online	14	1 part-time	3
Credenda Virtual High School and College ( <a href="http://www.credenda.net">http://www.credenda.net</a> )	Online	373	6 full time	32
Good Spirit School Division Distance Learning Centre ( <a href="http://gssd.ca/pages/distancelearning.htm">http://gssd.ca/pages/distancelearning.htm</a> )	Online	316	11 part-time	17
Regina Public Schools ITI/Online ( <a href="http://campbellcollegiate.rbe.sk.ca/">http://campbellcollegiate.rbe.sk.ca/</a> )	Blended	200 <sup>4</sup>	4 part-time <sup>4</sup>	4 <sup>4</sup>
Saskatoon Catholic Cyber School ( <a href="http://gscs.sk.ca/cyber">http://gscs.sk.ca/cyber</a> )	Online	874	4 full time 28 part-time	43
Saskatoon Public Schools – Online Learning Centre ( <a href="http://olc.spsd.sk.ca">http://olc.spsd.sk.ca</a> )	Online	823	2 full-time 9 part-time	28
ALBERTA				
Holy Family Cyberhigh ( <a href="http://www.cyberhigh.ca">http://www.cyberhigh.ca</a> / <a href="http://www.holyfamilycyberhigh.com">http://www.holyfamilycyberhigh.com</a> )	Online	85	5	25
BRITISH COLUMBIA				
Abbotsford Virtual School ( <a href="http://www.avs34.com/portal/">http://www.avs34.com/portal/</a> )	Online	1,313 / 491 <sup>5</sup>	36 part-time	45-50 (gr. 10-12) 8 (K-9)
Anchor Academy ( <a href="http://www.ark.net/">http://www.ark.net/</a> )	Online	503	30 full-time	~80 (gr. 10-12) 70-80 (K-9)

Programs	Medium	Students	Teachers	Courses
Heritage Christian Schools ( <a href="http://www.onlineschool.ca">http://www.onlineschool.ca</a> / <a href="http://www.bconlineschool.ca">http://www.bconlineschool.ca</a> )	Online Correspondence	1,688 full-time 2,450 supplemental	110	115

- (1) This includes both their participation in Ministry-delivered programmes and their own Online History programme.
- (2) This includes registration of Evergreen students in other division's programmes and other division's students enrolled in Evergreen's programme.
- (3) This includes both their participation in Ministry-delivered programmes and their own video conferencing and French immersion programmes.
- (4) This data is for a blended programme only.
- (5) This figure represents the number of adults enrolled in their K–12 programme.

# Northern Canada



The Northern Canada region is geographically the largest in Canada; in fact, it includes approximately 40% of the total landmass of the country. However, less than 1% of the total population of Canada resides in one of these three territories—0.3%, to be precise. In addition to being a large, sparsely populated region, the three territorial governments do not enjoy the same legislative freedom as the provinces (at least not constitutionally). All three territories utilise the K–12 curriculum of one of the southern provinces; the Yukon uses the British Columbia curriculum, while the Northwest Territories and Nunavut use the Alberta curriculum, with some additions to reflect their northern status and Aboriginal cultures.

As jurisdictions without their own curriculum, it is natural that all three territories make use of the K–12 distance education programmes located in the provinces they share a curriculum with. However, all three territorial governments do have or have attempted to build their own distance education programmes. In the map above, the striped colouring of the Yukon and the Northwest Territories represents the home-grown distance education programmes that are currently operating in those jurisdictions. It should also be noted that the territorial governments are dealing with a variety of other social challenges that affect the delivery of K–12 education, and K–12 distance education is simply a small part of this larger obstacle that needs to be overcome.

All of the distance education programmes that are based in Northern Canada participated in this individual programme survey.

**Table 8. K–12 Distance Education Programmes in Northern Canada, 2010–11**

Programs	Medium	Students	Teachers	Courses
YUKON				
Yukon Education Videoconference Programme	Videoconference	13	?	3
NORTHWEST TERRITORIES				
Beaufort-Delta Education Council E-Learning	Online	18–20	?	4

# Resources

## Newfoundland and Labrador

Centre for Distance Learning and Innovation

<http://www.cdli.ca>

K–12 School Profile System

[http://www.education.gov.nl.ca/sch\\_rep/pro\\_year.htm](http://www.education.gov.nl.ca/sch_rep/pro_year.htm)

K–12 School Profile System

[http://www.education.gov.nl.ca/sch\\_rep/pro\\_year.htm](http://www.education.gov.nl.ca/sch_rep/pro_year.htm)

Killick Centre for E-Learning Research

<http://www.mun.ca/killick/home/index.php/>

## Nova Scotia

Nova Scotia Virtual School

<http://nsvs.ednet.ns.ca/>

Correspondence Study Program

<http://csp.ednet.ns.ca/>

Agreement Between the Province of Nova Scotia and the Nova Scotia Teachers' Union

[http://www.ednet.ns.ca/pdfdocs/collective-agreements/teachers\\_provincial\\_agreement\\_english.pdf](http://www.ednet.ns.ca/pdfdocs/collective-agreements/teachers_provincial_agreement_english.pdf)

## Prince Edward Island

Minister's Directive No. MD 2001-05 Distance Education

<http://www.gov.pe.ca/eecd/index.php3?number=1028346&lang=E>

Minister's Directive No. MD 2008-05 Distance Education

<http://www.gov.pe.ca/eecd/index.php3?number=1027948&lang=E>

## New Brunswick

New Brunswick Distributed Learning Programme

<http://nbvhs.nbed.nb.ca>

## Quebec

*Société de formation à distance des commissions scolaires du Québec (SOFAD)*

<http://www.sofad.qc.ca/>

Learn Quebec

<http://www.learnquebec.ca/en/index.html>

*Écoles éloignées en réseau / Remote Networked Schools*

<http://www.eer.qc.ca/>

## Ontario

e-Learning Ontario, Ministry of Education

<http://www.elearningontario.ca/>

Ontario Education Resource Bank

<http://resources.elearningontario.ca/>

Ontario eLearning Consortium

<http://oelc.ca/>

Ontario Catholic e-Learning Consortium

<http://sites.google.com/site/ontariocatholicelc/home>

Northern eLearning Consortium

<http://sites.google.com/site/2010nelc/>

*Consortium d'apprentissage virtuel de langue française de l'Ontario*

<http://www.apprentissageenligne.org/>

Virtual High School (Ontario)

<https://www.virtualhighschool.com/>

Ottawa Carleton e-School

<http://www.ottawacarleton-school.ca/>

Keewatinook Internet High School

<http://www.kihs.knet.ca/>

Conference of Independent Schools eLearning Consortium

<http://www.cislc.com/>

## Manitoba

Independent Study Option

<http://www.edu.gov.mb.ca/k12/dl/iso/index.html>

Teacher Mediated Option

<http://www.edu.gov.mb.ca/k12/dl/tmo/index.html>

Web-Based Course Option

<http://www.edu.gov.mb.ca/k12/dl/wbc/index.html>

## Saskatchewan

Saskatchewan Distance Learning Course Repository

<http://www.skdistancelearning.ca>

## Alberta

Distributed Learning Strategy

<http://education.alberta.ca/departement/ipr/archive/adl-strategy.aspx>

Inspiring Education: A Dialogue with Albertans

<http://www.inspiringeducation.alberta.ca/>

## **British Columbia**

Ministry of Education, Distributed Learning  
[http://www.bced.gov.bc.ca/dist\\_learning/](http://www.bced.gov.bc.ca/dist_learning/)

Ministry of Education, Independent School Distributed Learning (DL) Programme  
[http://www.bced.gov.bc.ca/independentschools/bc\\_guide/dl\\_program.htm](http://www.bced.gov.bc.ca/independentschools/bc_guide/dl_program.htm)

LearnNowBC  
<http://www.learnnowbc.ca>

Virtual School Society  
<http://www.vssociety.ca/>

## **Yukon**

Department of Education  
<http://www.education.gov.yk.ca/>

## **Northwest Territories**

Department of Education, Culture and Employment  
<http://www.ece.gov.nt.ca/>

## **Nunavut**

Department of Education  
<http://www.gov.nu.ca/education/index.htm>

# Bibliography

- Ballas, F. A., & Belyk, D. (2000). *Student achievement and performance levels in online education research study*. Red Deer, AB: Schollie Research & Consulting.
- Barbour, M. K. (2001). Enrichment opportunities for gifted students in rural areas: Online AP social studies sources. *Ohio Council for the Social Studies Review*, 37(1), 18–29.
- Barbour, M. K. (2005a). The design of web-based courses for secondary students. *Journal of Distance Learning*, 9(1), 27–36.
- Barbour, M. K. (2005b). Perceptions of effective web-based design for secondary school students: A narrative analysis of previously collected data. *The Morning Watch*, 32(3–4). Retrieved from <http://www.mun.ca/educ/faculty/mwatch/win05/Barbour.htm>
- Barbour, M. K. (2005c). From telematics to web-based: The progression of distance education in Newfoundland and Labrador. *British Journal of Educational Technology*, 36(6), 1055–1058.
- Barbour, M. K. (2007a). Portrait of rural virtual schooling. *Canadian Journal of Educational Administration and Policy*, (59). Retrieved from <http://www.umanitoba.ca/publications/cjeap/articles/barbour.html>
- Barbour, M. K. (2007b). Principles of effective web-based content for secondary school students: Teacher and developer perceptions. *Journal of Distance Education*, 21(3), 93–114. Retrieved from <http://www.jofde.ca/index.php/jde/article/view/30>
- Barbour, M. K. (2009). State of the nation study: K–12 online learning in Canada. Vienna, VA: International Association for K–12 Online Learning. Retrieved from [http://www.inacol.org/research/docs/iNACOL\\_CanadaStudy\\_200911.pdf](http://www.inacol.org/research/docs/iNACOL_CanadaStudy_200911.pdf)
- Barbour, M. K. (2010). *State of the nation study: K–12 online learning in Canada*. Vienna, VA: International Council for K–12 Online Learning. Retrieved from [http://www.inacol.org/research/docs/iNACOL\\_CanadaStudy10-finalweb.pdf](http://www.inacol.org/research/docs/iNACOL_CanadaStudy10-finalweb.pdf)
- Barbour, M. K., & Cooze, M. (2004). All for one and one for all: Designing web-based courses for students based upon individual learning styles. *Staff and Educational Development International*, 8(2/3), 95–108.
- Barbour, M. K., & Mulcahy, D. (2004). The role of mediating teachers in Newfoundland’s new model of distance education. *The Morning Watch*, 32(1–2). Retrieved from <http://www.mun.ca/educ/faculty/mwatch/fall4/barbourmulcahy.htm>
- Barbour, M. K., & Mulcahy, D. (2006). An inquiry into retention and achievement differences in campus based and web based AP courses. *Rural Educator*, 27(3), 8–12.
- Barbour, M. K., & Stewart, R. (2008). A snapshot state of the nation study: K–12 online learning in Canada. Vienna, VA: North American Council for Online Learning. Retrieved from [http://www.inacol.org/research/docs/NACOL\\_CanadaStudy-lr.pdf](http://www.inacol.org/research/docs/NACOL_CanadaStudy-lr.pdf)
- Barker, K., & Wendel, T. (2001). *e-Learning: Studying Canada’s virtual secondary schools*. Kelowna, BC: Society for the Advancement of Excellence in Education. Retrieved from <http://web.archive.org/web/20040720185017/http://www.saeec.ca/pdfs/006.pdf>



- Barker, K., Wendel, T., & Richmond, M. (1999). *Linking the literature: School effectiveness and virtual schools*. Vancouver, BC: FuturEd. Retrieved from <http://web.archive.org/web/20061112102653/http://www.futured.com/pdf/Virtual.pdf>
- Brown, J., Sheppard, B., & Stevens, K. (2000). Effective schooling in a telelearning environment. St. John's, NL: Centre for TeleLearning and Rural Education.
- Canadian Council of Learning. (2009). *State of e-learning in Canada*. Ottawa, ON: Author. Retrieved from [http://www.ccl-cca.ca/pdfs/E-learning/E-Learning\\_Report\\_FINAL-E.PDF](http://www.ccl-cca.ca/pdfs/E-learning/E-Learning_Report_FINAL-E.PDF)
- Education Act*, S.Nu. S.N.W.T. SI-003-96 (1996). Retrieved from <http://www.justice.gov.nu.ca/apps/docs/download.aspx?file=Consolidated%20Law/Current/633621688721835000-592424442-conssnwt1995c28.pdf>
- Education Act*, S.Nu. 2008,c.15 (2008). Retrieved from <http://www.justice.gov.nu.ca/apps/docs/download.aspx?file=Statutes/633639155154181546-353475780-e2008snc15.pdf>
- Ertl, H., & Plante, J. (2004). *Connectivity and learning in Canada's schools*. Ottawa, ON: Statistics Canada. Retrieved from <http://www.statcan.gc.ca/pub/56f0004m/56f0004m2004011-eng.htm>
- Government of the Northwest Territories. (2009). *Senior secondary school administrators' handbook*. Yellowknife, NT: Queen's Printing for the Northwest Territories. Retrieved from [http://www.ece.gov.nt.ca/SENIOR\\_SECONDARY\\_HANDBOOK\\_06/SENIOR\\_SECONDARY\\_HANDBOOK\\_09/Chapters/C17%20Distance%20Learning%20V1.pdf](http://www.ece.gov.nt.ca/SENIOR_SECONDARY_HANDBOOK_06/SENIOR_SECONDARY_HANDBOOK_09/Chapters/C17%20Distance%20Learning%20V1.pdf)
- Haughey, M. (2005). Growth of online schooling in Canada. In C. Howard, J. Boettcher, L. Justice, K. Schenk, P. L. Rogers & G. A. Berg (Eds.), *Encyclopedia of distance learning*, (vol. 2, pp. 984–989). Hersey, PA: Idea Group, Inc.
- Haughey, M., & Fenwick, T. (1996). Issues in forming school district consortia to provide distance education: Lessons from Alberta. *Journal of Distance Education*, 11(1). Retrieved from <http://www.jofde.ca/index.php/jde/article/view/242/454>
- Haughey, M., & Muirhead, W. (1999). *On-line learning: Best practices for Alberta school jurisdictions*. Edmonton, AB: Government of Alberta. Retrieved from <http://eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED438798>
- Healey, D., & Stevens, K. (2002). Student access to information technology and perceptions of future opportunities in two small Labrador communities. *Canadian Journal of Learning and Technology*, 28(1). Retrieved from <http://www.cjlt.ca/index.php/cjlt/article/view/63>
- Independent School Act*, R.S.B.C., Chapter 216 (2006). Retrieved from [http://www.bced.gov.bc.ca/legislation/schoollaw/independent\\_school\\_act\\_contents.pdf](http://www.bced.gov.bc.ca/legislation/schoollaw/independent_school_act_contents.pdf)
- Muirhead, B. (1999). The benefits of an online education consortium for Alberta. *International Electronic Journal for Leadership in Learning*, 3(4). Retrieved from <http://www.ucalgary.ca/iejll/muirhead>
- Mulcahy, D. M. (1999). Future directions for rural schools in Newfoundland and Labrador: Is the "virtual school" the way to go? . *The Morning Watch*, 27(1–2).
- Mulcahy, D. M. (2002). Re-conceptualizing distance education: Implications for the rural schools of Newfoundland and Labrador. *The Morning Watch*, 30(1–2). Retrieved from <http://www.mun.ca/educ/faculty/mwatch/fall02/Mulcahy.htm>

- O'Haire, N., Froese-Germain, B., & Lane-De Baie, S. (2003). *Virtual education, real educators: Issues in online learning*. Ottawa, ON: The Canadian Teachers' Federation.
- Plante, J., & Beattie, D. (2004). *Connectivity and ICT integration in Canadian elementary and secondary schools: First results from the information and communications technologies in schools survey, 2003–2004*. Ottawa, ON: Statistics Canada.
- School Act*, R.S.B.C. (2006). Retrieved from <http://www.bced.gov.bc.ca/legislation/schoollaw/revisedstatutescontents.pdf>
- Stevens, K. (1997a). Three dimensions of leadership in a telelearning environment: School networking, collaborative teaching and open administration. *The Morning Watch*, 25(1–2). Retrieved from <http://www.mun.ca/educ/faculty/mwatch/fall97/three.htm>
- Stevens, K. (1997b). The place of telelearning in the development of rural schools in Newfoundland and Labrador. *Prospects*, 4(4). <http://web.archive.org/web/20071017071819/http://www.cdli.ca/Community/Prospects/v4n4/telelearning.htm>
- Stevens, K. (1999). A new model for teaching in rural communities: The electronic organisation of schools as intranets. *Prism*, Winter, 23–26.
- Stevens, K. (2000). Telelearning and the education of rural students in Newfoundland and New Zealand. *Geocarrefour*, 75(1), 87–92.
- Stevens, K. (2001). A four-step process for the development of knowledge-building communities in a digital intranet. *Journal of Distance Learning*, 6(1), 45–48.
- Stevens, K. (2003). E-learning and the development of open classes for rural students in Atlantic Canada. In J. Bradley (Ed.), *The open classroom: Distance learning in and out of schools* (pp. 149–157). London, U.K.: Kogan Page.
- Stevens, K. (2004). The management of virtual classes in school district digital intranets. In C. Cavanaugh (Ed.), *Development and management of virtual schools: Issues and trends* (pp. 178–191). Hersey, PA: Idea Group, Inc.
- Stevens, K., & Dibbon, D. (2002). Educational innovation in small communities: The introduction of e-learning to extend student educational and career opportunities. *The Innovation Journal*, 8(4). Retrieved from <http://www.innovation.cc/scholarly-style/stevens-dibbon.pdf>
- Stevens, K., & Moffatt, C. (2003). From distance education to e-learning: The organization of open classes at local, regional and national levels. In J. Bradley (Ed.), *The open classroom: Distance learning in and out of schools* (pp. 171–180). London, U.K.: Kogan Page.
- Stevens, K., & Mulcahy, D. (1997). *The telelearning and rural education centre: Macro and micro dimensions of small school research* (Publication no. ED413150). Retrieved from ERIC Clearinghouse on Rural Education and Small Schools <http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED413150>

# Appendix A

It's that time of year again, when I begin to update the information in preparation for the 2011 version of the *State of the Nation: K–12 Online Learning in Canada* report. I have attached a copy of the [province or territory name here] profile from the 2010 edition of the report. Please review the provincial or territorial profile from the 2010 edition of the *State of the Nation: K–12 Online Learning in Canada* report.

1. Have there been any changes in the legislative regime related to K–12 distance education?
2. Have there been any changes in the regulatory regime related to K–12 distance education?
3. Are there additional programs, not mentioned in the 2010 report, that should be included in an updated report?
4. How many students were involved in K–12 distance education during the 2010–11 school year?
5. Are there any additional issues related to K–12 distance education, not mentioned in the 2010 report, that should be included in an updated report?
6. Is there any information in the 2010 report that you feel should be updated or revised?

# Appendix B

## K–12 Distance Education Program Survey

1. What is the name of your K–12 distance education program?
2. Describe the methods of delivery your K–12 distance education program uses.  
Check all that apply.  
☐ Print materials   ☐ Audio graphics   ☐ Instructional television   ☐ Web-based/Online  
☐ Other:
3. When did your K–12 distance education program begin?
4. How many students were enrolled in your K–12 distance education program in 2010–11?
  - a. How many K–12 students were enrolled in your K–12 distance education program in 2009–10?
5. How many different courses did your K–12 distance education program offer in 2010–11?
  - a. How many different courses did your K–12 distance education program offer in 2009–10?
6. How many teachers were employed by your K–12 distance education program in 2010–11?
  - a. How many teachers were employed by your K–12 distance education program in 2009–10?
7. Are your teachers part-time or full-time?  
☐ Part-time   ☐ Full-time   ☐ Both
8. Does your K–12 distance education program have a geographic region or does it serve students from all around the province?  
☐ Geographic region   ☐ Province-wide
  - a. If you selected “Geographic region,” what is that region?
9. What is the website address for your K–12 distance education program?
10. Does your K–12 distance education program offer asynchronous or synchronous instruction?  
☐ Asynchronous   ☐ Synchronous   ☐ Both
  - a. If you selected “Asynchronous,” what tools do you use?
  - b. If you selected “Synchronous,” what tools do you use?
11. If there are any follow-up questions, who would be the best person for the researcher to contact?

Name:

Title:

E-mail address:

Telephone number:

# Call for Sponsors for the 2012 “State of the Nation: K–12 Online Learning in Canada” Study

The International Association for K–12 Online Learning (iNACOL) is seeking funding for next year’s K–12 online learning study of Canada. If your organisation is interested in participating through sponsorship by supporting the fifth annual *State of the Nation: K–12 Online Learning in Canada*, please contact Michael Barbour, principal investigator at [mkbarbour@gmail.com](mailto:mkbarbour@gmail.com), or Susan Patrick, CEO, iNACOL at [spatrick@inacol.org](mailto:spatrick@inacol.org).

Your participation as a sponsor helps support more widespread participation from virtual schools across the country in the K–12 online learning in Canada project and is an ideal opportunity to demonstrate your organisation’s interest in and commitment to supporting online learning. Your company or organisation will be recognised for its support of virtual schools seeking to effectively expand educational options for K–12 students across Canada.

iNACOL currently has over 3,800 members, and our previous studies are readily available to all members, as well as members of their organisations who have enrolled over 4,000,000 students in online courses during the 2009–2010 school year. With your support, you will be recognised among educators as an organisation committed to helping support online learning and virtual schools around the world.

Please review these sponsor benefits and opportunities for the *State of the Nation: K–12 Online Learning in Canada* study.

- Recognition in all post-study press releases, presentations, and distribution of information
- Opportunity to provide input into the programme survey
- Participation in project conference calls
- Project sponsor name and logo listed on all promotional materials
- Project sponsor name and logo listed in the final report
- Receive 50 copies of the final report
- Receive the Executive Summary of the final report for use on company website and for marketing purposes
- Receive recognition as a thought-leader for cutting-edge research of K–12 online learning in Canada for sponsoring the research study
- Sponsor recognition during iNACOL Webinar highlighting the study

The plans for the 2012 study include updating the K–12 policy and activity reports for each of the provinces and territories, a greater focus on some of the individual programmes within each jurisdiction (including more vignettes), and more issue papers examining specific issues in K–12 online learning in Canada written by individuals from a variety of sectors. Additionally, the individual programme survey will be updated and expanded.

For-profit and non-profit institutions, organisations, individuals, foundations, and companies are welcome to partner with iNACOL for sponsoring the study. Please consider sponsorship of this important survey and report, which will be conducted annually. Your consideration is deeply appreciated.



TOLL-FREE 888.95.NACOL (888.956.2265)    DIRECT 703.752.6216    FAX 703.752.6201  
EMAIL [info@inacol.org](mailto:info@inacol.org)    WEB [www.inacol.org](http://www.inacol.org)  
MAIL 1934 Old Gallows Road, Suite 350 Vienna, VA 22182-4040