

4. Case Studies

This section is designed to provide a more in-depth description of K-12 online learning in three specific provinces: Newfoundland and Labrador, Ontario, and British Columbia. This more developed description is broken down into three distinction sub-sections.

History of Distance Education

This sub-section is designed to provide a background to how the province arrived at its current state of distance education. We use the term distance education here intentionally, because much of the development towards online learning at the K-12 level came from earlier forms of distance education. Moreover, as was described in the previous section, many of the entities currently offering distance education in Canada utilized multiple forms of delivery, with online learning being only one of those methods of delivery – and often this is not the most common method utilized.

How K-12 Online Learning is Governed

As was discussed in the previous section, the Ministry of Education is responsible for K-12 online learning in each of the provinces. However, as it was also described in that section, most of the provinces do not have specific policies that govern K-12 online learning or distance education. As will be illustrated in the following pages, in some provinces, the K-12 online learning entities attempt to work within the existing system intended for brick-and-mortar education. This should be contrasted with the example of British Columbia, where the Ministry has taken a lead role in establishing policies that specifically apply to the distance education entities in that province.

K-12 Online Learning Activity

The final sub-section is designed to provide a more detailed discussion of the types of K-12 online learning programmes that are available in these three provinces and the scope of those programmes. Unfortunately, because of the variety of regulations governing online learning in each of the provinces, specific numbers of students involved in distance education and online learning, and even the exact number of programmes offering these opportunities, are difficult to obtain.

4.1 Newfoundland and Labrador

Geographically speaking, Newfoundland and Labrador is slightly bigger than the State of California, with the Labrador, or mainland portion, representing three quarters of that area. The provincial population is approximately 500,000, with just over 30,000 of those living in the larger Labrador region. Approximately 60% of the population lives within a one-hour drive of the capital, St. John's. In addition to a small population that is spread out over a vast geography, Newfoundland also has a high number of communities compared to its Atlantic Canadian neighbors, three quarters of which have less than 1,000 people. As such, the number of schools in the province has decreased from 593 in 1986 to 432 in 1996 to 294 in 2006, largely due to the amalgamation of small schools in the rural portions of the province (government of Newfoundland, 1986, 1996, 2006). Approximately two-thirds of the remaining schools are located in rural areas, and almost half of these rural schools

are designated as necessarily existent (i.e., a term used to describe a school that cannot be closed because it is located so far from another school that it makes bussing the students not feasible due to distance).

History of Distance Education

In 1988, the province implemented a programme of distance education for rural high school students using the Telemedicine and Educational Technology Resources Agency (Tele-medicine/TETRA) system. This Tele-medicine/TETRA distance education programme utilized an audio-graphics system (sometimes referred to as a telematics system) using bridging technology to provide conference calling facilities that were accompanied by a telegraphic device for reproducing handwriting by converting the manually controlled movements of a pen into signals that would appear on all of the computer screens linked to the audio-graphics network.

The main purpose was to provide students in small schools with access to secondary level courses that were important for post-secondary admission but difficult to offer in rural schools due to low levels of student enrollment. In its first year, one course was offered (i.e., Advanced Math 1201), and it had an enrollment of 36 students from 13 rural schools. During the life of this programme, additional courses in mathematics, chemistry, physics and French as a Second Language were added. By 1999-2000, there were 11 different courses that had 898 course enrollments from 703 individual students attending 77 different rural schools (Brown, Sheppard & Stevens, 2000).

In the mid- and late-1990s, a number of web-based distance education programmes began to develop within the province. For example, in 1996 four provincial governments (including Newfoundland and Labrador) began the East–West Project to offer web-based information technology courses for adult learners. Later, Memorial University of Newfoundland (MUN) began a partnership with the Vista School District for the creation of a district-based Intranet to offer Advanced Placement mathematics and science courses. The Vista School District Digital Intranet: The Delivery of Advanced Placement Courses to Young Adult Learners in Rural Communities (VDI) officially began in 1998, providing a model for other district-based online learning programmes to develop.

Based upon these projects, authoring standards and templates were developed. This was important because in 1999, the government appointed a ministerial panel for the purposes of examining the delivery of education in the province. This included “examining the current educational delivery model and consider alternative approaches” (Sparkes & Williams, 2000). From the recommendations of this report, a province-wide virtual school – the Centre for Distance Learning and Innovation (CDLI – see <http://www.cdli.ca/>) – was created based upon the web-based model that had been evolving throughout the province (for a more detailed history of the development of distance education in Newfoundland and Labrador, see Barbour, 2005a).

How K-12 Online Learning is Governed

Typical of the distance education programmes in many provinces, the CDLI is not considered a separate school or a separate entity. It operates as a component of the Planning and Educational Programs Branch of the Ministry of Education. Due to the fact that it is not a separate entity, the CDLI does not directly enroll students or hire teachers – these responsibilities fall to the individual schools and school districts throughout the province. As such, the policies laid out in the provincial

Education Act and other subsequent directives by the Ministry of Education that are applicable to brick-and-mortar schools are also applicable to the online learning students enrolled in those schools.

Students are registered in their individual brick-and-mortar schools. The schools are responsible for registering their students in up to four CDLI courses, and special permission is required for students who are interested in registering for more than four classes (as most students take seven or eight courses each year, so more than four online courses represents more than 50% of their total course load). The schools, through their school districts, continue to receive the full funding allocated for the student – regardless of their level of participation in the CDLI’s online learning. Once a student is registered with the CDLI they are considered an enrollment and are counted in all official statistics. This is significant, as many schools complete their course registrations in May or June for the coming school year that begins in September. This means that a school could register a student for a CDLI course in May, over the summer the student may change their mind, and on the first day of the new school year change their schedule to remove the CDLI course. In this instance, that student would be counted in the CDLI’s attrition statistics even though they never actually started any CDLI course and the decision to drop the course was made before the school year even began.

The provincial government directly funds the CDLI. The administrators of the CDLI are hired by and are employees of the Ministry of Education, and they are primarily based either in the Ministry or in the Faculty of Education at MUN (as the university is one of the partners in the CDLI initiative). There are some administrators based at remote sites throughout the province, although this is limited to one or two individuals.

The CDLI does not directly hire faculty. The government provides the CDLI with an allocation of teaching units. The CDLI seconds teachers from school districts throughout the province (i.e., the process of secondment means that the teacher is still an employee of the school district but is on loan to the CDLI, and depending on the number of teaching units allocated to the school district they are usually able to hire a replacement for that teacher’s in-school teaching duties). At present, the CDLI has approximately 30 teachers for their online course offerings. Most of these teachers remain in the schools they were teaching in prior to their secondment, although some are based in the CDLI offices at MUN. This means that the CDLI has a direct presence in schools and school districts throughout the province through these teachers – who are also often called upon to act in the unofficial role as ambassador for the CDLI in these rural and remote locations.

Finally, the CDLI also has an official presence in each of its participating schools. The CDLI provides each of its schools with up to seven computers, headsets, combination printer/scanner/fax machine, a video conferencing system, and any other equipment necessary for their students to take advantage of their online learning opportunities. The primary responsibility for the maintenance of this equipment also falls upon the CDLI (although often many minor issues are handled by personnel at the school or school district level). Each school is also responsible for appointing a mediating teacher (m-teacher) or mediating team (m-team). The m-teacher or m-team provides supervision and support, although not academic support, to the students enrolled in CDLI courses. This includes proctoring tests and exams, monitoring student attendance and behavior, and providing general support in gaining the independent learning and self-motivation skills that may be needed to succeed in the CDLI environment. At many schools, these responsibilities fall upon a group who might include a school administrator, technology teacher, secretary, custodian, and/or a student enrolled in the CDLI (who is often given the title of e-tutor).

K-12 Online Learning Activity

At present, the only K-12 online learning activity in the province is that of the CDLI. When it began in 2001-02, it offered 10 courses as a field test to approximately 200 students from 76 schools. By 2004-05 this had grown to approximately 1,500 student enrollments in thirty-five courses in 95 different schools (government of Newfoundland and Labrador, 2004). There were 1688 enrollments during the 2005-06 school year and 1484 enrollments during the 2007-08 school year – both representing approximately 900 students in over 100 schools (M. Barry, personal communication, 12 May 2008).

The CDLI offers a combination of synchronous and asynchronous instruction in all of its courses. Anywhere from 20% to 70% of the students' scheduled time (which is ten 1-hour periods over a 14 day cycle) is allotted for synchronous instruction using a virtual classroom. The remaining scheduled time is allotted for asynchronous instruction using content housed in a course management system. The course content is divided up into lessons designed as asynchronous instruction that can be completed in usually one to three hours of student time. Teachers assign these lessons, along with other student work, during the scheduled asynchronous time to supplement the synchronous instruction. The strong reliance on synchronous instruction makes the CDLI somewhat unusual in the Canadian K-12 online learning landscape, although not entirely unique.