

Models of Learning at a Rural High School

An Introduction to Localized On-Line Learning

Erin Khelouiati

School of Education, Thompson Rivers University
Kamloops, BC

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Abstract

2010 marked the 13th consecutive year of declining enrolment in British Columbia public schools. The largest decline within the province's 60 school districts occurred in Prince George School District #57. Since 1995, the district has experienced a 31% decrease in student numbers (BC Ministry of Education, 2010). School District 57 covers an area of 52,000 square kilometers and located at the southeastern tip of the district is the rural community of Valemount. In September 2010 Valemount Secondary introduced a new model of learning at their school which uses Moodle to offer on-line courses to their own students, with the aim of keeping students enrolled locally, rather than in courses offered by remote, third-party institutions. Using surveys, interviews and observations in the context of a descriptive/exploratory case study at Valemount Secondary, this research project looks at one school's experiences with implementing a localized on-line learning model. This study shows the success of the program as largely attributable to its compatibility with the unique learning characteristics of rural, adolescent learners.

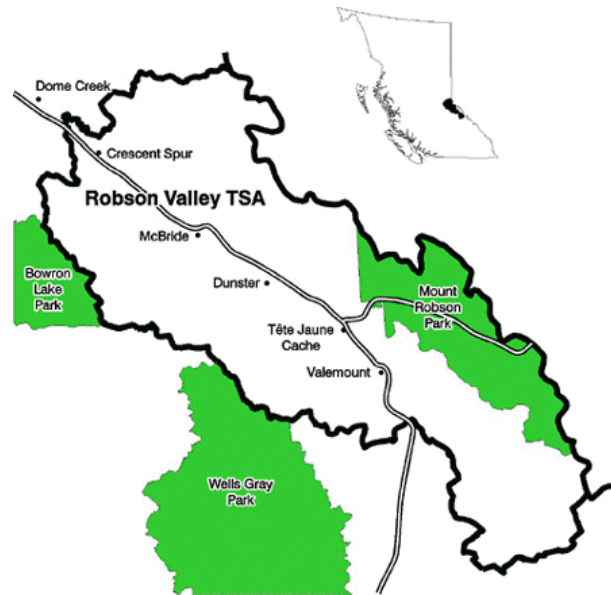
Chapter 1- Introduction

In introducing the model of localized on-line learning at Valemount Secondary, it is first important to provide context to the experiences of the stakeholders at Valemount Secondary and at rural BC high schools in general. My introduction begins with an account of the current situation in BC rural schools. This section provides background on the importance of schools in rural communities and the funding structure for rural schools. I then begin a discussion of my personal connection to Valemount Secondary School and the specific conditions at this school that led to the development of the localized on-line learning model. My introduction ends with a discussion of distance education and how the localized on-line model fits into the spectrum of on-line learning.

Valemount Secondary and Changing Rural Schools

Like the district as a whole, the secondary school in Valemount has been experiencing a steady decline in its student enrollment. In 2006-2007 there were 135 students at the school. In 2009-2010 there were only 89 in total. Since schools are funded, and also opened and closed based on student numbers, administration and the school district have had to make difficult decisions when considering the future of Valemount Secondary.

Figure 1. Map of the Robson Valley¹



Since 2002, School District 57, in which Valemount Secondary (VS) is located, has closed 22 schools. Many of these were rural schools located in communities such as Dunster, Mackenzie, Bear Lake and Willow River. These rural schools were located in single resource towns in which larger economic changes such as global recessions, have a profound trickledown effect on the demographics of the communities. In total 197 schools have been closed in BC since 2002. Every school closure, whether in a rural or urban setting, impacts students and communities, but it is rural communities that arguably carry a heavier burden than urban areas when schools are closed. Research indicates that social and economic welfare are higher in rural communities that have schools (Lyson, 2002). Advocates of rural schools stress that the school is the centre of their

¹ This map shows the location of Valemount in relation to the towns of Dunster and McBride. These three rural communities are at the South Eastern tip of Prince George School District #57 and are referenced in this paper. (www.for.gov.bc.ca/hts/tsa/tsa17/)

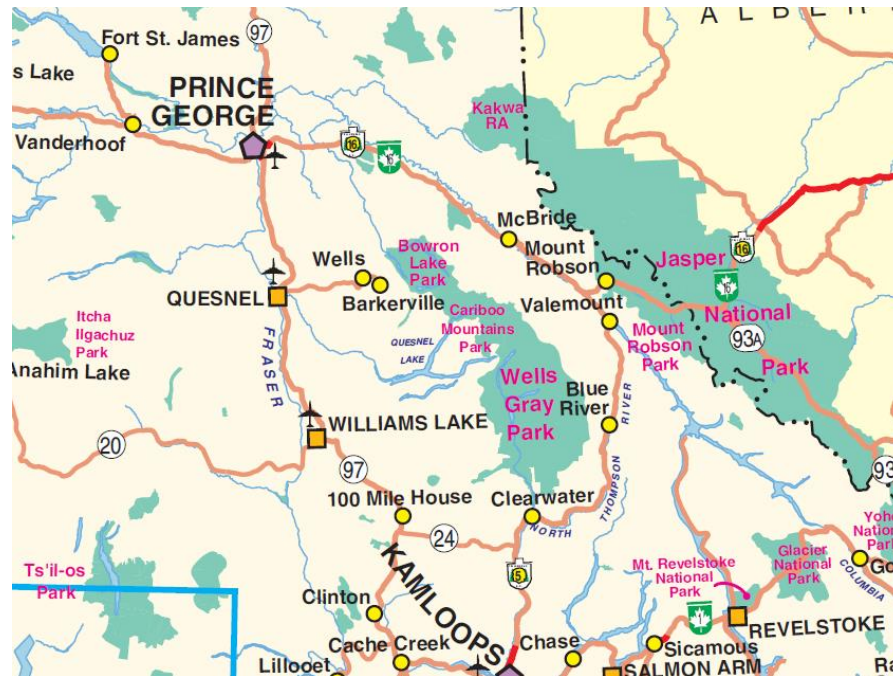
community and is integral to the social and economic viability of the community. Rural communities fear losing their school because they know that losing a school would not only mean losing a large employer in the town, but ultimately, also losing the link to the communities past, present and future (Koepke, 1991). The threat or reality of school closure is tangible in many rural communities in BC.

The closure of a rural school changes the lives of students and staff immediately. “Most impacts of school consolidation on students are immediate, or nearly so; however, the impacts of consolidation on the respective communities -- socially and financially – may occur over several years” (Sell & Leistritz, 1996, p.1). It is difficult to quantify the impact that closing a rural school has on a community. Many residents of rural areas are passionately opposed to the closure of rural schools in their communities as has been demonstrated by the occupation of the Dunster Fine Arts School: At the end of the school year in June 2010, parents and supporters of the Dunster school occupied the school in protest of the district’s plan to close this school. At the time there were approximately 30 students enrolled in the K-7 school which is 30km away from the nearest elementary school in Valemount. The occupation of the Dunster School continued 24 hours a day for 4 days when parents refused to leave the school at the end of the school year in 2010. On July 3rd, 2010 the parents were served with a court injunction to leave the school. In September 2010 the board approved an offer by the parents association to buy the school for \$39,500 (Nielsen, M., 2010). The

district agreed to keep the school open and to provide a teacher with the condition that the parents association provide for the upkeep, maintenance and costs associated with the school property. As long as the school continues to enroll a minimum 20 students, the district will continue to provide the teacher. The agreement between the parents of Dunster and the school district is based the model of the Wells-Barkerville Community School, located near Prince George (Steffenhagen, 2010). The parents of the community of Wells, a small town located in the Cariboo region of BC, fought a battle similar to that of the parents of Dunster and were also able to save their small rural school from permanent closure.

Figure 2. Map of BC Interior³

³ This map shows the location of the town of Valemount in relation to the city of Prince George and the town of Wells-Barkerville. (www.hellobc.com)



Rural residents are powerful advocates for the schools and communities but any sense of collective agency in a community can be eroded when that community loses its school. Sell & Leistritz's (1996) study of rural communities in North Dakota found that community involvement and participation decreased in towns that lost their schools. Research suggests that schools are often the focus of rural communities and are integral to keeping the community spirit and involvement sustainable. There are few longitudinal studies that have looked at how the closure of rural schools changes communities gradually over time. In my experience as an educator at a rural school, I have found rural residents often look to rural school administrators to find innovative ways to keep their schools open. Administrators, teachers and parents want to find ways to continue delivering quality education within their rural communities.

Valemount Secondary is undergoing changes to its timetable and class scheduling. This is in preparation for possible changes to the high school. One possibility is that Valemount Secondary and McBride Secondary, located in a town 80km west, align their timetables to facilitate video conferencing between the two schools. Another possibility would see Valemount Secondary become a grade 4-12 school or even a K-12 school. Presently, the school operates on a rotating timetable that offers senior courses every second year. History 12 and Geography 12 are offered in alternating years as are most of the senior science courses. This enables the courses to have sufficient enrolment to operate as a classroom with face-to-face instruction by drawing on student numbers from grade 10, 11 and 12. Despite the best efforts of the teachers and administration to keep face-to-face instruction in their school, the numbers have gone below the critical level necessary for certain senior academic courses. During the 2010-2011 school year, the administration managed to recruit 10 international exchange students which increased the student enrollment to nearly 100 students. Even with this influx of new students, there has been insufficient enrolment to offer some of the senior academic courses that students would like to take through face-to-face instruction.

Students at VS enroll in distance education courses offered through School District 57's distance education school CIDES (Central Interior Distance Education School) and through other districts online programs such as KOOL School in Kamloops for courses that are not offered at Valemount Secondary. With bi-

yearly rotation of courses, some students are unable or unwilling to wait until the course they want is offered at Valemount Secondary. Each time a student enrolls in a course offered outside of Valemount Secondary through distance education, a percentage of funding for that student is taken away from Valemount Secondary and is allocated to the district offering the distance education course. The students' grades, successes and completion are also credited to the district offering the courses. The effect is that many of the most motivated and academically successful students are enrolling in outside courses and outside institutions which are able to take both the credit and the material compensation for those students' successes. A review of the conditions of on-line learning across the country by Barbour and Stewart explains the funding model in BC.

Funding for students in these distributed learning programs comes from the province's allotted full-time enrolment (FTE) allocation. For grade 10-12 students, each student's FTE is divided into eight components, with each course representing a component. If a student is enrolled in six courses in their brick-and-mortar school and two courses in their district's distributed learning program, then the school would receive six eighths of the FTE and the distributed learning programme would receive two eighths of that FTE. K-9 students, however, can only be enrolled in one school that receives the full FTE allocation. For the distributed learning programs, enrolment is counted three times throughout the year as a

way to determine active attendance in the program. (Barbour & Stewart, 2008, p. 27)

The use of distance and on-line courses in secondary schools has grown exponentially in the last 10 years in BC. The research to date on distance education use in secondary schools across Canada and the US has shown that there is little difference in academic outcomes when distance education is compared to face-to-face classroom instruction. Barbour and Stewart's 2009 report describes the growth of on-line learning in BC.

Almost 60,000 students, or nearly 10% of the province's student population, took at least one online course or programme last year. This was an increase of over 37% over the preceding year, even though K-12 enrolment declined in the same period. Most students taking online courses also simultaneously attend regular schools; so online courses are helping students overcome timetable problems or gain access to courses not offered locally. In provincially examinable courses, the performance of online students is comparable to that of students in regular classes.

(Barbour & Stewart, 2009, p. 44)

Many rural schools including the high schools in Clinton, BC and Ashcroft, BC have abandoned face-to-face instruction altogether in their senior academic courses and have opted to employ ODE (on-line distance education) or video-conferencing as the method of instruction. It is often the only feasible option available to rural school administrators. "From a policy perspective, studies

comparing distance education with traditional classroom instruction do not seem relevant. In many rural schools, administrators do not have a choice between the two when seeking to offer many courses”(Hannum & Irvin, 2009, p. 13).

Personal Connection

My interest in Valemount Secondary comes from personal experience. From 2007-2009 I worked part-time as a math teacher and TOC (Teacher-On-Call) at VS. Prior to my experience working at VS I had worked as a high school teacher in Toronto, Victoria and Kamloops. Valemount was my first experience living and working in a rural community. Our move to Valemount coincided with the beginning of my work in the M.Ed. program at Thompson Rivers University in 2007. I began to search for a potential research topic, but I didn’t need to look far for a fascinating phenomenon to study. The high school students in Valemount were refreshing. They wanted to know about me as it was important for them to place me. Our teacher-student relationship improved as our interpersonal connection grew. At my first parent-teacher conference I had a 100% turnout; I met at least one parent of all of my students. That level of participation in a high school parent-teacher night is incredible. At lunch hour all of the staff, including the support staff, ate together in the staff room. I would constantly encounter my students outside of school either at their places of

employment or doing recreational activities. The rapport that began in the classroom extended to all other aspects of my life.

There were interpersonal conflicts among students, staff and teacher/student but these were part of the fabric of the school, rather than being artificially displaced to the outside. I found that the students had excellent interpersonal skills derived from a lifetime of socializing, accepting and collaborating with the same people in their peer group. The school was the event hub of the community. The gym, theatre, and meeting rooms were in constant use by the local community groups, arts society and recreational sports enthusiasts. Not only were parents of students involved in the school but many of the adults in Valemount felt part of the school community. At the graduation ceremony each grad is given 10 tickets for guests to attend the banquet. All of the students use their seats and many students need to apply to get additional tickets because 10 is not enough. As a teacher it was a very special place for me to teach and work.

Figure 3. Photograph of Valemount Secondary School⁵



As I began to work in Valemount, I reflected on the uniqueness of the students in my classroom. I had never taught at a small school before so I questioned whether the student traits I noticed in my classroom could just be attributed to the nature of students in a small school rather than the students at a rural school. However, as I continued to teach and work in a rural community I began to believe that the intense experience of rural students participating in all facets of life (school, recreation, work, religion, social) with the same peer group could explain some of the characteristics that I would come to identify in my literature review as Rural Student Characteristics.

⁵ Photograph of Valemount Secondary taken by the author in June 2010.

Many teachers at rural schools do not live in the communities in which they teach. The rural schools located outside of Kamloops are close enough to the city that many teachers commute daily to the rural communities and in fact view the jobs in rural schools as a temporary stepping stone to a job in Kamloops. The unique rural student-rural teacher dynamic that I explore in my results section, happens when a rural teacher lives in the community in which she teaches.

I recognized while I was working there that things were changing. Each year the number of students enrolled at the school decreased. The graduating class of grade 12s was twice the size of the incoming class of grade 8s in 2009. The closure of the mill in 2006 had meant the loss of 200 direct jobs. With the town's major employer gone, many families moved to other communities. The model of direct instruction became less feasible as the school size decreased. Knowing the students at the high school, the importance of relationships, having a personal connection to your instructor, the need to place people and the collaboration among students, I realized that a transition from face-to-face learning to on-line learning would present a significant challenge to many of these students.

The model of instruction at Valemount Secondary in 2009 was in crisis. The loss of funding or students could erode the school's ability to employ specialist teachers to teach academic courses. The growth of distance education meant increased choice and flexibility for current students while paradoxically limiting

the choice and flexibility for future students. As more students enrolled in distance education classes offered outside of VS, the ability of offer face-to-face classes to future students was jeopardized.

The tipping point for Valemount Secondary came in the Fall of 2008. At that time the school employed two science teachers. One worked part time and was also the learning resource teacher. Her specialty was physics. The other worked full time and taught Chemistry, Biology and the junior science courses. For the five years prior to 2008, Physics 12 had only been offered when there were enough students enrolled in the course. As the numbers for the school began to decrease, it became less and less likely that Physics 12 would be offered at the school again. Physics 11 was offered every second year in the first semester. This allowed a pool of both grade 11 and grade 12 students to draw from to augment the enrollment numbers.

In that Fall of 2008 one grade 11 student wanted to take both Physics 11 and Physics 12. Since Physics 11 would only be offered in his grade 12 year, he wanted a commitment from the school that they would offer both Physics 11 and Physics 12 in his grade 12 year. The school was unable to give the student this guarantee so the student thought that it would be his best option to take Physics 11 online in his grade 11 year and then take Physics 12 online in his grade 12 year. He recruited 2 of his friends and the three of them enrolled in an online Physics 11 course in their grade 11 year. The administration of the school was

unhappy with this decision. The outcome was the potential pool of students for the Physics 11 course was now decreased by 3 and there were no longer sufficient enrolment to warrant offering the Physics 11 course face-to-face.

Those three students went on to complete the Physics 11 course successfully. They worked together under the support of a parent who provided a study space in her home during their free block at school and transported them to and from school so that they could study. Physics 11 has not been offered at the school since this incident. In June 2011 both of the science teachers left VS.

Localized On-Line Learning

This single choice regarding Physics 11 forced the administration to critically look at the future of their school. If one small decision from a single student could have such an impact then the future of face-to-face instruction at the school was very tenuous. In attempting to maintain the local component within the virtual domain, VS developed an innovative hybrid of ODE and face-to-face instruction. Acknowledging the importance of scaffolding to help keep students motivated (Tuckman, 2007); Valemount began to offer its own ODE courses within the school to help stem the flow of students taking ODE courses outside of Valemount and taking their marks and funding elsewhere. The model developed at VS can best be described as *localized on-line learning* (L-OL).

As Figure 3 shows, Valemount Secondary is atypical in the BC rural high school landscape. It was built in 2005 after the former high school was condemned due

to health reasons. It is a “smart” school with a wireless network, projectors in all the classrooms and a brand new theatre, gym, shop, art room and foods lab. Within the physical environment of the school there exists a secondary campus. The Centre for Learning Alternatives is the alternate high school in School District 57. The physical school exists in Prince George but they operate numerous programs at satellite campuses throughout the district. The alternate programs offered through the Centre for Learning Alternatives are geared towards youth who experience significant challenges in a formal school setting. The Centre for Learning Alternatives offers a program after school at VS for Valemount area students who quit school before graduating. The courses offered through this program are paper-based distance education courses that are administered by the alternate teacher at VS. This secondary campus operating within the physical environment of VS was used as the course provider for the locally developed on-line courses.⁶

The province of BC has funding regulations for ODE courses which dictate that schools cannot offer both face-to-face and online courses to students. Schools are either a dedicated face-to-face institution or an ODE institution. The exception to this is video conference classes which cross-enroll students from different schools within a district. However, because of the unique secondary campus at VS, the alternate education teacher is also a classroom teacher at VS.

⁶ The existence of this secondary campus within VS, permitted the school to offer both face-to-face and on-line courses to VS students.

He was employed by two different schools within the same district and resided in Valemount. He applied to the BC Learning Network (BCLN) for membership and received permission to offer online courses to both the students in the alternate program and students at VS. The BCLN gave him access to numerous on-line courses developed in different districts that he acquired and then adapted for use at VS. VS developed its own locally designed on-line courses that are offered to VS students as a first option before enrolling in distance education courses offered outside of the home school. VS undertook the development and delivery of these courses primarily for two reasons: The first is to maintain the available funding by having the students enroll in their own courses and directing per-pupil funding allotment back to the school. The second is to develop a program which enables the school to track and monitor students enrolled in on-line courses through a personal connection with the teacher.

Before introducing the localized on-line model in 2010, Valemount and the district had experimented with various video-conferencing and ODE models. One year the school district aligned the timetables of Valemount & McBride with Kelly Road, a secondary school in Prince George. The students from the rural secondary schools were encouraged to sign up for courses offered through Kelly Road that would be video-conferenced to them. No one signed up for the courses in the rural schools. The program was cancelled. As the principal describes it, "Putting rural and urban kids together was a disaster [resulting in] virtual classrooms that no one signed up for. It is the problem with a district

model of three outlying schools and everyone else is in the PG (Prince George) bowl” (DK).⁷

By decreasing the “transactional distance” (Moore, 1993) or the immediacy of contact and communication between the learner and the teacher, the staff at Valemount are attempting to design ODE programs that bring teachers and students into closer contact. Murphy (2008) describes that an increase in deliberate strategies to promote rapport, collaboration, and engagement decreases the transactional distance. Distance education courses offered by other districts and other virtual schools cannot provide this interpersonal connection in the same way that a local teacher can for rural students. Rural students in particular benefit from a personal connection to their teacher and it is one of the most significant indicators of academic success and persistence for rural students (Nielsen & Nashon, 2007). Nielsen & Nashon’s case study looked at the barriers experienced by rural secondary students in BC accessing senior science courses. The study found that students were wary and less engaged in science classes that were taught by newcomers to the community. Students did not begin to actively engage with their teachers until the new teacher became a returning teacher the following year. The course retention rates for those schools reflect this information. The classes with the higher retention rates were

⁷ The quotation is from Dan Kenkel (DK), the principal of Valemount Secondary. (DK) is used throughout the text to indicate a direct quote from Dan Kenkel.

taught by teachers who had been living in the community for more than one year.

The staff and administration of VS acknowledge that the introduction of localized online learning is a challenging undertaking. Their goal is to ensure the viability of their current school and to enhance the students' opportunities for success by keeping the program local, thereby promoting rapport and engagement between teacher and student. This program will enable the students to know their teachers and to access teacher support, elements that researchers emphasize are to success for rural learners. The staff at VS also want acknowledgement for their students successes and enrolment numbers.

Distance Education

Localized on-line learning is presented here as a part of the spectrum of distance education options and configurations, but it is not generally acknowledged in the literature. None of the other models including "standard" distance education, distributed learning, blended learning or teacher facilitator approaches accurately capture the model of instruction introduced at VS. This part of the introduction situates the localized on-line learning model into the spectrum of distance education forms and configurations.

The first attempt to define distance education and to formulate a theory to account for its characteristics was in 1972 (Moore, 1993). This first theory of education at a distance acknowledges that “distance education is not simply a geographic separation of learners and teachers, but, more importantly, is a pedagogical concept. It is a concept describing the universe of teacher-learner relationships that exist when learners and instructors are separated by space and/ or by time” (Moore, 1993, p. 22). A more recent definition of distance education is provided by Schlosser & Simonson (2010), who describe it as an “Institution-based, formal education where the learning group is separated, and where interactive telecommunications systems are used to connect learners, resources, and instructors” (p. 1). In terms of the telecommunications used, distance education programs can be said exist on a continuum from paper-based courses to interactive videoconferencing. On-line learning is a form of distance education that uses computers and the Internet as the medium of instruction. There are still some distance education programs that primarily use text and the post as a form of communication between the teacher and the learner.

Blended Learning combines both face-to-face instruction and distance learning. Students may meet together for regularly scheduled classes and then complete assignments on-line between the scheduled classes. “In general terms, blended learning combines online delivery of educational content with the best features of classroom interaction and live instruction to personalize learning, allow

thoughtful reflection, and differentiate instruction from student to student across a diverse group of learners” (Watson, 2008, p. 4).

Distributed Learning is the terminology used to describe the form of distance education available in BC. In Distributed Learning, “the learners can choose between courses offered at more than one location. Similarly teachers are not tied to one teaching institution and a group of students located there, but are capable of teaching students who are situated in different places and available at different time periods”(Gudmundsson, 2004, p.1). The common element to all the distance education programs is the separation between the learner and the teacher which can lead to profound differences in learning and teaching behavior. Both students and teachers have to bridge the gap created by this transactional space, but there is a necessary skill set required on the part of the learner to bridge this distance. Many adult learners possess the skills necessary to effectively access distance education courses. High school students and especially rural high school student have more difficulty bridging the transactional distance.

In British Columbia the centralized portal for accessing distributed learning courses in K-12 is called LearnNow BC where students from across the province can access information about distributed learning and register for courses. Students enrolled in home school districts throughout the province can register in courses at different times throughout the year offered by many different

school districts. Students in different parts of the province –in Prince George, Sechelt and Kaslo, for example– could all be enrolled in the same Physics 11 course offered through the Vancouver School District. “Most students who register for online courses are in regular schools and take these courses for reasons of convenience or accessibility. Other students, like those in rural communities, take online courses because of limited options in their area” (Learn Now BC: About Us).

As already indicated, the model at VS does not fit naturally into any of the subsets of distance education. It cannot be defined as blended learning because there is no face-to-face component for the instruction and it is not necessarily distance education because although the learners and teachers are separated, they are still at the same school. The teacher administers and facilitates the courses during one block of the timetable but the students are working on the courses in many different blocks depending on the timetable availability. It does not fit directly into the idea of distributed learning because at this stage, only students at VS will be taking the on-line courses offered through their home school. There will not be other students in different schools enrolled in the same courses. The model the pilot project at Valemount most closely resembles is that of the hybrid learning model as described in de la Varre et al (2010) paper entitled “Enhancing online distance education in small rural US schools: a hybrid, learner-centred model”. de la Varre’s study examined the experiences of 700 students over a two year period enrolled in ODE courses at 93 rural high schools

in the United States. In this model there is an online teacher and a local school teacher/ facilitator. The paper describes the role of the teacher/facilitator. The teacher/facilitator role “links the local classroom environment more closely with the online environment, and the responsibilities for ensuring student success are distributed between online instructor and facilitator. Students are enrolled in a course delivered completely online, yet also meet and interact face-to-face in their local classrooms every day with their facilitator” (p. 194).

The difference between this hybrid learning model and the Valemount model is that in the Valemount model the online teacher and the local teacher/facilitator are the same person. The local teacher takes on both roles. I describe the Valemount model as a localized on-line learning (L-OL) program because it acknowledges that the primary medium for instruction and communication is on-line but because of the geographical proximity of the learners and teachers, there is a local component to the instruction.

The local component to the program manifests itself in the interpersonal interactions that occur between the learner and the teacher inside and outside of the classroom. The students enrolled in the courses know the teacher and have regular interaction with him in the hallways and in the library. The teacher has foreknowledge of the types of technological or academic barriers that the students might experience and is able to adapt the specifications of the course to meet the needs of the learners.

My research project is a descriptive/exploratory case study of the models of instruction at rural secondary schools. The approach that VS is attempting is unique and it would be valuable for other rural schools and rural students to learn from the experiences at VS. As more students enroll in distance education courses *outside* of the home school, the lower the likelihood that that course will ever be offered at the rural school again. If VS is able to develop a sustainable and successful model for locally developed distance education courses, then other schools may consider this option in order to return some funding and credit to rural secondary schools. In the broader sense of education itself, their experiences at VS will speak also to the importance of the pedagogical relationship between the teacher and student (van Manen, 2002) in general as it relates to the quality of the experiences and the desired outcomes.

Chapter 2 –Literature Review

For my Literature Review I focused on four areas. First, I looked at the history of rural education in BC to give context to recent developments in rural schooling. Second, I studied the history of distance education with particular emphasis on the BC context. Third, I examined the role of distance education in secondary schools with particular emphasis on rural secondary schools. Fourth and finally, I compared the characteristics of successful distance education students with those of rural students.

History of Rural Education in BC

During the last part of the 19th century, the history of rural education *was* the history of education in British Columbia. The first school was established in what was known as Fort Victoria in 1849 for children of the Hudson’s Bay Company officers. “The school was known as the “Company School,” to distinguish it from the “Colonial School” established three years later for children of the servants (i.e. ordinary employees) of the Hudson’s Bay Company” (Dunae, n.d.). The first public school or “common” school opened in New Westminster in 1862. The Public School Act of 1872 led to the establishment of a Provincial Board of Education and the creation of school districts.

By 1884, a distinction was made between rural and city school districts. “Schools located outside urban areas were classified as *Rural Schools*. Each *rural school*

district was a separate administrative unit and each unit was responsible for operating a single one or two-room school” (Dunae, n.d.). Rural schools districts were under the guardianship of the provincial Department of Education which sent inspectors to visit these school districts twice a year. By 1932, there were over 800 separate rural schools districts in British Columbia. The total number of schools districts in the province was just 832 and was comprised of just 1,163 schools (Fleming & Hutton, 1997).

The Great Depression sparked a movement towards school consolidation in all jurisdictions across Canada, with British Columbia being no exception. The provincial government commissioned the Cameron Report in 1945 to examine the state of school governance and finance. The report recommended that the province reduce the number of school districts to 74 larger school districts, some of which were already in existence. Heeding the recommendations of the Cameron Report, the government consolidated rural school districts and created 74 larger administrative units in 1946, numbered geographically from east to west.

School District #57, created by the Cameron Report, encompasses a vast geographic area with an urban centre in Prince George and several outlying rural schools. The Cameron Report was well received in Prince George as it centralized the district’s operations in the city. The rural areas were

apprehensive as it meant the end of community schools, but the beginning of opportunities for rural youth to graduate high school (Renquist, 1974).

At the time of the Cameron Report, Valemount was a true frontier mill town, built along the Grand Trunk Railway line; it was only accessible by rail. The first schoolhouse was built in Valemount in 1916 just after the construction of the railway in 1914. In 1935, a new schoolhouse was built after the original school house burned down. The elementary school in Valemount existed in its own school district until the establishment of District #57 in 1946. Secondary education was not an option in Valemount during this time and it did not become a possibility until the newly created Yellowhead Highway passed through town in 1965. The first class graduated from Valemount Secondary in 1975 and this began a new chapter of possibilities for Valemount residents.

A mere 35 years after the first class of 15 students graduated from Valemount Secondary, the school has come full circle. The 2010-2011 graduating class at Valemount was 20 students. The school conditions during the 1970s and 1980s paint a portrait of a crowded and boisterous school with portables and classrooms overflowing with students. Current Valemount students now attend school in the newly constructed building which is much more than adequate to contain the school population of 84 students.

It is clear that history of education in Valemount is characterized by isolation, both geographic and political, and an independent, frontier spirit. When

Valemount was amalgamated with the Prince George School District in 1946, the school was a day's train ride away from the administrators and decision makers in the district. The development of the localized on-line learning model capitalizes on this innovative frontier spirit present since the creation of schooling in Valemount. The school looks for solutions within the community and utilizes the resources present in the town instead of looking to the school district to fix the problem.

History of Distance Education

For my literature review I felt it was important to look at the historical roots of distance education and especially its use in secondary schools. I narrowed my study to look specifically at distance education in BC schools. As is the case across Canada, this history is one of technological development and civic-minded vision:

The history of distance education in Canada is interwoven with the invention of new communications technologies, the expansion of education, particularly adult education, and the commitment of individual Canadians who had a vision that communications technologies could extend learning opportunities and promote the full participation of all Canadians in the economic, social, and civic life of the nation. (Rogers, 1993, p. 1)

For BC, this extension of learning opportunities began relatively early on. The first correspondence high school was started in BC in 1919 (Dunae, n.d.). Of the 86 original students, 13 of them lived at lighthouses situated along the coast of BC and were unable to attend regular public school. By 1929, the number of attendees of this correspondence school had grown to over 600 students.

Starting in the 1920s, universities began to use radio stations to broadcast lectures and to support adult education programs. During this time provincial governments across Canada established departments within education ministries to oversee correspondence schools serving elementary and secondary aged students in rural and remote communities. The CBC (Canadian Broadcasting Corporation) became involved and began allocating time for educational broadcasts on the network during the 1930s. Television provided a new educational medium and by the mid-1950s the CBC was experimenting with education television programming.

The establishment of institutions dedicated to distance education began at the post-secondary level in the 1970s and included Athabasca University and the Open Learning Institute in BC in 1978. The Knowledge Network of the West in BC was a provincial education communications agency which broadcast and developed credit courses and programs designed to complement classroom instruction. The method was originally conceived to reach students in rural and remote areas who were not able to physically attend university. Although as

Wallace (1996) notes, by 1996 the changing demographics of university distance education students in Manitoba revealed that the typical DE student was a young urban dweller and not a rural adult learner.

Starting in the late 1990s, school districts began looking at alternative methods of course delivery in rural and remote areas in Canada. Most of the literature on Canada's K-12 distance education has focused on Alberta and Newfoundland (Barbour & Stewart, 2008). In Alberta, Fort Vermillion School District adopted what was then a novel approach to use technology to augment the delivery of high school courses (RACOL, 2005; Barbour & Reeves, 2009). The school district wanted to find a way to continue offering senior courses to an ever shrinking rural student demographic. In the early 1990s Newfoundland was experimenting with the use of technology to offer advanced placement courses to underserved student populations (Barbour, 2007 & 2008; Barbour & Mulcahy, 2009; Barbour & Reeves, 2009). Online learning began in BC in 1993 through the creation of both New Directions in Distance Learning and the EBUS Academy (Dallas, 1999). These initial efforts to use distance education for course delivery are characterized by course offerings of advanced senior classes to academically capable students (Hannum et al, 2009; Roblyer, 2006; Boyd, 2004; Barbour & Mulcahy, 2009). Districts used distance education to serve rural and remote populations that not only had difficulty recruiting and retaining specialized teachers, but were unable to offer courses to the small population of students who enrolled in these courses (Barbour, 2007). In many of these early efforts,

moving the students to the classes was not feasible so districts looked at different ways of bringing the classroom to the students. In short, within the Canadian context, “K-12 online learning has often been viewed as a substitute when face-to-face learning is not available”(Barbour, 2007, p.7).

Distance Education in Secondary Schools

There are many research studies that look at the use of distance education in post-secondary institutions. Since many distance education programs began in post-secondary institutions, it is natural that there is more extensive research in this area. There are far fewer studies looking at distance education in secondary schools and very few that look at distance education specifically in rural schools. For my literature review I examined studies primarily done in the United States and Canada that looked at distance education in secondary schools. There are many comparative studies that look at the relative effectiveness of distance education compared to face-to-face instruction, but there are far fewer studies looking at the experiences of rural secondary students enrolled in distance education courses. For my literature review I was interested in studies that looked at the experiences of rural secondary students involved in distance learning with special emphasis on the BC experience.

The use of distance education programs has grown exponentially since the 1990s in British Columbia, as is also the case elsewhere. In 2006-2007 it is estimated that 33,022 students were enrolled in online learning programs. By 2008-2009

that number had risen to 59,345 students (Barbour & Stewart, 2009). In 2009-2010 there were 71,405 unique students enrolled in distance education courses (Barbour, 2010). By 2006-07 all provinces and territories in Canada had begun to offer online programs to high school students. There are provincially based programs as well as district based programs. In BC the distance education program is provincially regulated under the umbrella of LearnNow BC with districts developing their own programs. Distance education programs are available for many grade levels and courses. It is not only used in situations where it is not possible to offer classroom courses but as an alternative to classroom courses.

Funding for ODE in BC Secondary Schools

Part of the growth in ODE has been as a result of legislative changes impacting the way that courses and schools are funded. In 1995, the School Act in BC changed the term correspondence education to distance education acknowledging the importance of computer technology. At this time only nine districts in the province offered distance education courses. The Ministry of Education expanded distance education programming in 1998 by increasing the number of districts offering distance education to 18. At this time the province funded distance education on the “hurdle” method. Districts received \$250 per student once that student had completed a certain percentage of a given course. The funding was not dependent on completion of the course, but only

completion of the threshold percentage. This funding model still exists today for adult education programs. For some adult education programs the threshold is 10% of the course while for other program the threshold is only 3%. (The 3% is for adult inmates on remand taking courses through a school district program at a corrections centre.) This “hurdle” method of funding enables districts to continuously enroll students throughout the school year.

By 2001 the province had removed enrolment caps and changed the legislation, so that all districts could begin offering distance education courses. The amount of money the district received depended on when the student enrolled. If the student enrolled in September, the district received funding equal to a face-to-face course. If the student enrolled after September, the district only received the \$250 once the percentage threshold was reached.

In 2006, the conditions changed again in BC when Bill 33 was enacted. Bill 33 leveled the playing field for all districts and changed the funding structure. It established the province wide portal for Distributed Learning called “LearnNow BC” which enables students to enroll in courses offered by any district throughout the province. Students enrolling in distributed learning courses at any time of the year would be funded in the same way as any other student in a brick and mortar school or online. As described in the introduction, Bill 33 assigned each student in grades 10-12 eight blocks of funding. Each block

represented a course and the funding could now be distributed between the student's home school and the host district of any ODE course.

Comparative Effectiveness of ODE and Face-to-Face

As already discussed, recent years have seen tremendous change in BC's rural schools, with dwindling enrolments leading to decreased funding, and increasing costs due to decreased economies of scale and mounting maintenance and transportation expenses presenting further challenges. In Valemount, support staff travel 300 km from Prince George to maintain the grounds and perform external maintenance for the school. Faced with funding shortfalls and dwindling enrolments, districts across BC have made difficult decisions to close some rural schools and to reconfigure others. Distance education is perceived as a life-saver for many rural schools. Distance education can be a way for students to remain in their communities and earn high school credits. However, as "the bulk of ODE (online distance education) research has been conducted on samples of post-secondary learners, evidence to support positive outcomes and thus the use of specific technologies or strategies in ODE is currently minimal or lacking, particularly in K-12 populations" (de la Varre et al, 2010, p. 194).

The majority of the research in K-12 populations has focused on comparing the effectiveness of K-12 classroom instruction vs. on-line instruction in Canada and the US (Rice, 2006; Barbour, 2008; Bernard & Abrami, 2004). The overall conclusion of many studies is that there is very little difference in the

measurement of certain outcomes when comparing the two types of course delivery (Bernard & Abrami, 2004). Academic achievement and scores on standardized tests between classroom and distance instruction are comparable (Barbour & Reeves, 2009). This research has led many districts to conclude that ODE is just as good if not better than classroom instruction.

The comparative effectiveness of online and face-to-face education is part of the picture, but not the whole picture. There is little research looking at either the experiences or the drop-out rate of rural students enrolled in distance education courses and programs. As already intimated above, distance education courses have a high drop-out rate whether the students are rural urban or mixed (Barbour, 2008; RACOL, 2005; Canadian Council of Learning, 2006; Barbour & Mulcahy, 2009). Some researchers estimate that the drop-out rate for high school students is as high as 50-70% (Roblyer, 2006).

There is particular concern about how drop-out rates are being reflected in comparative research studies. Are comparative studies of distance education and traditional classroom education taking into account students who registered for but did not complete distance education courses? How do the retention rates of distance education courses compare to traditional classroom education? Many distance education courses have a 30 day trial period. During this time a student may enroll in a course and drop out. When this happens, the student registration is not included in official course retention calculations. The student's

registration and withdrawal are not counted when the registration and completion numbers are calculated. As Hawkins & Barbour (2010) describe, “varying metrics make it difficult to compare attrition rates among virtual schools. The variability also makes it challenging to compare attrition rates between virtual schools and brick-and-mortar schools, particularly when making comparisons from state to state” (p. 7). The high drop-out rate draws attention to a paradox affecting comparisons of ODE and face-to-face. Students who are successful in online courses could be just as successful in classroom courses, but not all students in classroom courses will successfully complete even the first few weeks of distance courses.

Characteristics of Distance Education Students and Rural Students

Many research studies have identified specific characteristics that enable students to be successful in distance learning environments. Given the high drop-out rate in distance education courses, many research studies have attempted to investigate why this occurs. For my literature review I researched the characteristics of successful Distance Education learners. In addition, I considered literature outlining the characteristics of rural learners to understand how these two sets of character traits compared. If rural learners are among the main consumers of distance education courses, it is important to gain an understanding of their learner characteristics as well as the characteristics of their local communities. Distance education may be an option for all students,

but it may not be the best option for rural secondary school students. If rural students are recognized as possessing unique learning styles and learning preferences, it is important to question whether the design of distance education courses is meeting the needs of these learners.

There have been many studies that have looked at the characteristics of successful online learners (Hartley & Bendixen, 2001; Boyd, 2004; Wang et al, 2008; Smith et al, 2005; Roblyer, 2006). The requirements for success in the online classroom fall into four main categories; technological, environmental, personal and learner characteristics. Both the technological and environmental category focus on the concrete aspect of online and distance education, referring to the physical environment or setting in which the learner learns. The capacity of the computer, connection speed and technical dexterity of the user are considered the most important technical elements of this setting (Boyd 2004). The physical space where the learner studies is also a part of this environmental dimension, and can include others in the physical environment — others who can sometimes make a decisive difference. For example, Barbour (2007) describes a successful student at the CDLI in Newfoundland taking an advanced placement math course who worked on his course at home with his mother (a math teacher) and an older brother (studying engineering), offered an environment that clearly had much supportive potential. Such an environment is obviously not the norm for many online students. It is not surprising that online students who are identified as successful possess certain personal characteristics

such as motivation and the ability to take initiative. As Boyd (2004) says, “successful online students are highly motivated by their goals and their ability to shape their learning experience” (p. 35). Hung et al undertook an extensive 2010 study of over 1000 college-aged students, and found that “two readiness dimensions need special attention: learner control and self-directed learning. Teachers may need to help students develop self-directed learning and learner-control skills and attitudes, especially for online learning contexts” (p. 1086). Additionally, successful online students need to have good reading and writing skills, since the communication with the instructors and fellow students will not be verbal and face to face but it will occur in written form. It is also acknowledged that students need to have appropriate learning styles (Hartley & Bendixen, 2001), and at the adult level at least, there is evidence suggesting that students who prefer concrete learning are less successful in online courses (Dille & Mezack, 1991). There has been very little research looking at learning styles and online learning that have focused on high school students. Generally speaking, many of the characteristics used to describe successful online learners seem to be more appropriately descriptive of adult learners, as Boyd has noted: “Taken together these characteristics suggest that online distance education is ideally suited for many *adult* learners” (Boyd, 2004, p.37, emphasis added).

Distance education clearly caters to a specific type of student. Pre-assessment questionnaires available on the Learn Now BC website assess the readiness of a particular student for a distributed learning course. The list of student

attributes necessary to be successful in an online course as noted on the website does not accurately describe all high school students. If a student does not meet the requisite characteristics they are told that if “You answered no to any of the questions, you may want to consider how to adjust your learning style to cope with the unique learning challenges of Distributed Learning and Courses” (Learn Now BC: Is DL Right for You?). In keeping with traits identified in the literature, the Learn Now BC program seems to expect that its students are intrinsically motivated, organized, take initiative, tolerate ambiguity, don’t procrastinate, and have very good reading and writing skills (Learn Now BC: Is DL Right for You?). It is ironic that online course providers acknowledge that online courses may not be suitable for all learners while in some rural districts it may be the only option available to some students (Hannum and Irvin, 2009; Barbour, 2008).

Do high school students possess the necessary skills to be successful on line learners? More specifically, do *rural* high school students possess the skills necessary to be successful online learners? High school students undoubtedly face challenges with various aspects of distance education. As Smith et al. (2005) describes “a range of educational theorists have noted differences between child and adult learners that should be taken into account. Younger online learners may have a lower degree of the autonomy needed to learn independently and less internal locus of control and intrinsic motivation to persist in their studies” (p.13). Online learners need to manage their learning, monitor their work and be self-directed all of which can be challenging for youth (Tuckman, 2007; Wang

et al, 2008). Barbour's (2008) study looking at student perceptions of online learning in fact concludes that many adolescents may not yet be ready or able to learn in adult orientated independent learning environments. Barbour refers to the works of cognitive psychologists such as Piaget and Vygotsky who have argued "that the ability of adolescents to learn in independent learning environments is less than that of adult learners because of differences in their development" (p. 365). Cavanaugh et al (2004) confirms Barbour's conclusions, also describing how young learners are different from adult learners and that online education offers challenges to adolescents.

The question of the suitability of *rural* high school students for online education is of course very important here. However, this is not considered in the literature. Only the experiences of high-school students in general are described. One difference between these groups is that whereas students (and their parents/guardians) in large urban centers might *choose* to attend a school or take a course online (versus face to face), there is generally no such choice for rural students, or their parents or guardians.

Some researchers have looked at rural learners as a subset of adolescent learners, without including consideration of the online component (Nachtigal, 1982; Hardré et al., 2009; Cox & Sproles, 1988; Fitzgerald & Bloodsworth, 1996; Nielsen & Nashon, 2007). These studies show that rural high school students possess different personal traits than their urban counterparts. Fitzgerald &

Bloodsworth (1996) modified the undergraduate courses they taught based on the eight identified characteristics of Potterfield & Pace's (1992) study of rural students in the southeastern section of the United States. The study describes rural learners as having a strong preference for cooperation, as viewing learning as a social experience, as having an aversion to individual recognition, and preferring information to be presented orally rather than in written form. Cox & Sproles (1988) study of variations between rural and urban students found that rural and urban students have significant variation in their learning styles. Rural students were classified as active, practical learners who learn best when engaged in practical hands-on activities. Both Neilsen (2007) and Hardré et al (2009) found that teacher support was one of the strongest indicators in predicting success for rural secondary students. Rural students benefitted from knowing their teacher and developing a relationship of trust. All of these traits resonate with my own impressions of Valemount and its school: Students work together effectively, are well socialized, and are conscious of their community in general and of the stability of the teacher's role in it.

Many teacher education programs have courses that focus on the diversity in the Canadian teaching landscape. Teachers are encouraged to make adjustments to their learning plans, teaching styles and language to effectively teach a diverse student population. Rural-urban differences are part of this diversity. As Nachtigal (1982) explains, "Rural communities are not miniature versions of the cities; they have different characteristics and different needs" (p. 12.) Rural

students also remain rural students even when they are enrolled in urban ODE courses. Rural students characteristically feel a strong sense of connectedness to their school and a community and are habituated to being educated in learning environments with high levels of intimacy and teacher immediacy (de la Varre et al, 2009).

Rural schools have always occupied a special place in the Canadian landscape, one quite different from their urban counterparts. The romanticized vision of the one room school house has recently been melding with the current picture of rural schools as disadvantaged and facing obstacles (Canadian Council on Learning 2006).

There is often less bureaucracy in rural settings and more of an independent self-reliant attitude. When I worked in a rural school, parents and community members would frequently come into the school to chat with the principal or to check up on the school activities. It was not necessary to make an appointment or to send an email in advance of a visit. When people wanted to express their opinion or to make suggestions it is often very easy to access people in a rural community. People who live in rural communities need to be able to trust one another out of necessity, rather than relying on commercial and public services that are readily accessible in urban centres. In many rural communities it is normal for students and teachers to know each other and to have social interaction both inside and outside of the school. The personal connection

between student and teacher augments the learning of the student in the classroom. Many families and students want to know their teachers personally. Students have a more difficult time responding to outsiders or to new teachers in the classroom. I found that for many students, knowing the teacher is the catalyst that allows the learning to happen. To teach effectively in a rural community, one must become a part of the community (Nielsen & Nashon, 2007).

Rural schools also have the opportunity to be more flexible than their urban counterparts (Newton & Knight, 1993). Their small size and lack of bureaucratic structure make implementing change easier than at many other schools. VS has responded to the change in mandatory physical education by implementing a school wide program in which students sign-up each week for different recreational activities facilitated and organized by the staff. They are able to incorporate this program into the regular school day and still have enough instructional time for classes. The small population and small staff facilitate easy communication and discussion to design and implement a plan.

As described in the introduction, the borderless nature of the Web allows students to enroll in courses offered by external districts. Students are able to “shop” for the best course available to them and register for courses in any district. When this happens, particularly in a context like Valemount, the home school and the home district loses. The students equivalent funding and grades

are credited to the district which offers the course in which the student is registered. The funding to the rural school is decreased and the student's success is given to the external district.

To draw this literature review to its conclusion, it is important to note that many of the characteristics of rural students and rural schools and communities that are not specifically investigated in the literature illuminate potential points of tension between the characteristics of rural students and the implementation of distance education. The relative anonymity and impersonality of urban institutions and urban environments generally translate fairly directly to online learning contexts: student and teacher in a large urban school will be subjected to a kind of facelessness that is an often-noted characteristic of online teaching and learning. Both will be subject to rules and processes, whether technical, institutional or both, that are applied with a kind of bureaucratic impersonality. Rural students, on the other hand, will be more accustomed to having a personal relationship with their teachers and will tend to be wary of outsiders. A distance education teacher is often a faceless person who they only have contact with over the Internet. They do not personally know the teacher nor does the teacher reside in their town. Most of the communication within distance education is written. These include email messages, postings on courses boards and responses to assignments. There is little opportunity for meaningful verbal communication between teacher and student. Rural students who prefer hands-on practical learning will have to stretch to find opportunities in a distance

education context to find learning opportunities of these kinds. Physics 11 in a classroom is characterized by extensive lab work while many online versions of the course rely on virtual labs with little access to resources and manipulatives.

Rural students are rural learners no matter the medium. To put rural and urban students into the same distance education courses is to ignore the unique characteristics of rural learners. The rural learners will be at a disadvantage as many distance education courses are tacitly tailored meet the needs of urban students –the “average” or “representative” student. To come from an exceptional environment where place and community are integral to how you relate to the world to an online environment that is faceless and placeless is undoubtedly challenging for rural students.

Chapter 3- Research Design

My study is an exploratory/descriptive case study that includes both qualitative and quantitative measures. I will begin this section by first describing the research methods that informed my research. Then I will describe the sources of data that were used in the study and the processes of data collection and analysis.

Case Study Research

In the first part of this methodology section, I situate my research within the fields of qualitative research and case study design. I begin by describing a central purpose of qualitative research and how my research project fits with it. Next I outline how my research follows a case study design. Finally, using examples from the research, I present my research as a descriptive/exploratory case study.

Case study is an appropriate method of educational research to study the introduction of the localized on-line learning model at Valemount Secondary.

Case study research is generally a type of qualitative research. As defined by Schumacher & McMillan (1993), "Qualitative research is naturalistic inquiry, the use of non-interfering data collection strategies to discover the natural flow of events and processes and how participants interpret them" (p. 372). The focus in much qualitative research is to study a phenomenon from "the participant's

point of view,” and in my study, I consider the points of view of many of the participants and stakeholders involved in Valemount’s localized online learning program. In addition, in the study described here, “the goal is to understand the situation under investigation primarily from the participant’s and not the researchers’ perspective. This is called the *emic*, or insider’s perspective as opposed to the *etic* or outsider’s perspective” (Hancock & Algozzine, 2006, p. 8). In these terms, my research is positioned as an emic study of the situation of Valemount School.

Case studies allow researchers to investigate real time events within a natural or “real-world” context. As defined by Yin (2011) a case study “is an empirical inquiry that (1) investigates a contemporary phenomenon in depth and within its real-life context, especially when (2) the boundaries between phenomenon and context are not clearly evident” (p. 18). The context in which the events occur is very important to the phenomenon being studied; and this is clearly the situation for the phenomenon studied here. Accordingly, my initial focus is on this phenomenon and its specificity within the larger context of Valemount and its school. Only by initially defining and then sustaining this focus, I believe, can my case study ultimately provide something of clear value to those in other situations. As Stake (1995) explains: “Case study research is not sampling research. We do not study a case primarily to understand other cases. Our first obligation is to understand this one case” (p. 4). The case study framework

allowed me to investigate the “case” in relation to the social setting and in the natural context.

Research that exhibits several important characteristics can be defined as a case study. These characteristics are outlined in Hancock & Algozzine’s book (2006) *Doing Case Study Research*. “First, although case study research sometimes focuses on an individual representative of a group (e.g. a female principal), more often it addresses a phenomenon (e.g. a particular event, situation or program, or activity)” (p. 15). My study is an in-depth exploration of a program developed and used at one rural school. It is a singular phenomenon that occurred at Valemount Secondary. “Second, the phenomenon being researched is studied in its natural context, bounded by space and time” (p. 15). I conducted my interviews, data collection and observations at Valemount Secondary during the 2010-2011 academic school year, in a natural context and during a specific time period.

It also corresponds to a third important characteristic; namely, that

case study research is richly descriptive, because it is grounded in deep and varied sources of information. It employs quotes of key participants, anecdotes, prose composed from interviews and other literary techniques to create mental images that bring to life the complexity of the many variables inherent in the phenomenon being studied. (p. 16)

This characteristic is exemplified in the descriptive emphasis of my research, which (as I enumerate below) covers the content of multiple types of in-depth qualitative (and some quantitative) data gathering. It also makes use of enrolment numbers, BC School Profile Tool and school records and my own recorded observations during my visits to the school.

This study of the localized on-line learning program at Valemount came out of my own interest to learn more about the innovations happening at this rural high school. Accordingly, my research can be further described as an intrinsic case study. “The case is given. We are interested in it, not because by studying it we learn about other cases or about some general problem, but because we need to learn about that particular case. We have an intrinsic interest in the case, and we may call our work *intrinsic case study*” (Stake, p. 3). In a typical case study, like the one described here, the investigator has no control over the event being studied. The investigator is not able to manipulate variables but seeks to describe and explore the case in question.

Given their interest in the specificities of a single situation, case studies can generally be characterized as “descriptive.” “Case studies,” as Schumacher & McMillan (1993) explain, “can provide a detailed description and analysis of processes or themes voiced by participants in a particular situation” (p. 377). Yin (2009) similarly emphasizes that the point of many case studies “is to *describe* an intervention and the real-life context in which it occurred” (p. 19).

My research fits the model of a descriptive/exploratory case study, as I investigate the successes and challenges of the intervention of an innovative teaching and learning program.

A closely related example of an exploratory/descriptive case study and the uses of this approach is described in an article written by Barkley (2006) studying rural innovation. He explains his rationale by saying:

Organizations or programs often are so new that little information exists (outside the organization) regarding the workings and impacts of the organization. Case studies are a popular research methodology for these situations. The exploratory/descriptive case study serves as an example of the potential benefits of change. (p. 5)

A similar exploratory/descriptive case study was used by Armfield (2007) to showcase an innovative model of teaching and a new learning program at a middle school in the United States.

As Schramm (1971) describes, “The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result” (p. 6). Schramm goes on to argue that case studies are the preferable research tool to study changes in instructional design. The case study encourages the research to gather a range of data related to the “case”: qualitative, quantitative and observational data to create a situational picture of

how the events unfolded in the contemporary setting. My research studies a new model of instruction, a model that blends both on-line learning and face-to-face learning.

Despite its focus on the specificities of a single situation and intervention, methodologists are careful to emphasize the relevance of case study research beyond the specific case being investigated. Flyvbjerg (2006) has recently articulated the value of case study as follows:

First, the case study produces the type of context-dependent knowledge that research on learning shows to be necessary to allow people to develop from rule-based beginners to virtuoso experts. Second, in the study of human affairs, there appears to exist only context-dependent knowledge, which, thus, presently rules out the possibility of epistemic theoretical construction. (p. 221)

I have undertaken my own research confident in the belief that experiences of the stakeholders at Valemount Secondary could inform the practice of other programs at rural schools, and that these experience could assist them in overcoming the same challenges and leveraging the same strengths as Valemount Secondary.

Data Collection

Following the model of an exploratory/descriptive case study, my project uses data, questionnaires (Appendix B1) , interviews (Appendices B2 & B3) and personal observations to record the experiences of stakeholders in the localized on-line learning program at Valemount Secondary. The stakeholders are the students, the teachers, the principal and the parents. The interviews were conducted at the school in February 2011 at the end of the first semester, and at the end of the 2nd semester in June 2011.

Figure 4 Data Collection: organized by date, name and type of data

This table summarizes the sources of my data. On each date I have listed the types of data collected and stakeholder sources from which my data are derived

February 24th, 2011	Stakeholder	Name	Data Collected
	Principal	Dan Kenkel	Interview: overview of program, collection of newspaper articles and references
	Teacher/L-OL administrator	Dan Lawless	Interview: list of students enrolled in Moodle ⁸ and ODE courses
	Teacher & Counselor	Mr. Smith	Interview: course enrolment data for ODE courses attempted and completed from 2005-2011
	Student	Roxy	Interview and survey

⁸ Moodle is used informally by students to describe courses in the L-OL model

February 25th, 2011	Stakeholder	Name	Data Collected
	Student	Jamie	Interview and survey
	Student	Sarah	Interview and survey
	Student	Taylor	Interview and survey
	Student	Mariah	Interview and survey
	Student	Beyonce	Interview and survey
	Student	Bob	Interview and survey
	Parent	Mrs. Bartram	Interview
	Parent	Mrs. Anderson	Interview
June 1st, 2011	Stakeholder	Name	Data Collected
	Parent	Ms. Thompson	Interview
	Parent	Mrs. Smith	Interview
	Teacher	Ms. Hepworth	Interview
	Principal	Dan Kenkel	Follow-up interview
	Teacher/progra m administrator	Dan Lawless	Follow-up interview- Moodle course completion data
June 2nd, 2011	Stakeholder	Name	Data Collected
	Parent	Mrs. MacDonald	Interview
	Parent	Mrs. Van Owen	Interview
	Teacher	Mr. Trepanier	Interview
	Teacher	Ms. Goodwin	Interview

My primary contact at the school was Dan Lawless, a teacher, site administrator and course developer of the localized on-line learning program. Dan is a former colleague that I worked with while a teacher at VS. My other primary contact was Dan Kenkel the principal of VS. Dan Kenkel is the author of an article, The Virtual End of Rural Schools which was published in the *Admin* journal of the BC Principals and Vice-Principals Association. In it Kenkel (2009) argued as follows:

For many learners, especially those with special needs, those at risk, and many of Aboriginal ancestry, DL (distributed learning) is not a viable option. Relationships and attachment are key to success with kids.

Teachers in classrooms, responding to the learning needs of students in their room, and establishing relationships with their students, creates inspiration, motivation and personalized instruction. (p. 24)

The personal relationship of which Dan Kenkel speaks played a central in my research. He acknowledges that the localized online model is like “trying to put a plug in the dike”. However, he is passionate about expanding the repertoire of what his school can do locally to ensure its future security.

After receiving ethics approval from the TRU Ethics Committee I contacted both Dan Lawless and Dan Kenkel at VS to arrange a time to visit the school. I visited the school on February 24th & 25th, 2011. I realized that if I had no prior connection with the school it would have been incredibly difficult to conduct my research. I had a list of 13 students enrolled in ODE and Moodle courses, and

fortunately I knew almost every student on that list. More importantly the students on that list felt that they also knew me. During my visit I was easily able to approach almost all of the students on the list.

It became even clearer to me as my study progressed how important my prior personal connection with the students was to my research. Most of the students were currently in grade 11 or grade 12. When I worked at the school, these students had been in grade 8 or grade 9; and while I did not teach any of these students directly, I had been a substitute in their classes. I was familiar with all of them and had made a personal connection with some of them when I had worked at the school on an even earlier occasion when I had worked at the school for a period of two years. In my own experience it had been difficult to go beyond the casual friendliness of my co-workers and neighbours in the first year that I lived in Valemount. I felt that it was only after I lived there for a year, that people began to accept me as a resident, and not as a temporary visitor who could not become a part of the community. The students were open to speaking with me during my visit because they could place me.

My foreknowledge of the school and the stakeholders enabled me to quickly gain the trust and respect which is so necessary to effectively be able to conduct qualitative, case study research. I was also aware of the background to the current pilot project and the discussions that had occurred in years prior to its implementation that had brought about its development. Being privy to this

information has given me insight into the background and rationale for the project.

Prior to conducting my research I had been in contact with an Assistant Superintendent at the School Board Office in Prince George. She gave me permission to conduct my research in the district after reviewing my proposal. She mentioned to me that she receives many requests to conduct research in the district especially in the rural schools. While many of the requests receive district approvals, very few of the requests receive approval at the school level especially in the rural schools. Even fewer of the requests are rewarded with concrete results from the rural schools. She hypothesized that it was difficult to conduct research at rural schools because of the at-a-distance involvement by the researchers and the lack of personal connection between the researchers and the subjects. Although it is important for researchers to not “go native” (or simply reproduce the attitudes and assessments of stakeholders and participants), it would be difficult for an outside researcher with no prior relationship to the school to conduct the same study at VS. During the interview process I refrained from asking leading questions and focused on the participants’ own experiences to maintain my objectivity. In many cases while I was familiar with the person or course being described by the interviewee, I did not offer my own opinion or contribute to the interview in ways other than asking questions.

During my visits to Valemount I also collected quantitative data from the principal and counselor about the numbers of students enrolled or taking distance education courses. Although there is a province wide student information system (BCeSIS), it does not allow administration or counselors at a student's brick and mortar school to see what other courses that student is taking through different districts. That information is only made known to the home school when a course is completed and is added to the student's record for tracking grad requirements. The counselor gave me a list that he had been compiling since 2007. This list included the students who had registered in ODE courses, the names of the courses, the institution offering the course (in some cases) and whether the course was completed or not. The counselor had been tracking the ODE registration of students at VS on his own using information provided to him by the students and through the students' timetables. He had also made notes to himself whether the student was a motivated and capable student, if the student had a supportive parent, if the student was working with other students, if the student had learning challenges or struggled academically and if that course was an elective or core graduation requirement course.

This data was an invaluable resource and an exemplary kind of "naturalistic" information, but I recognize that it was not 100% accurate. It would have been possible that a student could have enrolled in an ODE course on his or her own and never shared that information with a staff member at school. At the same time, the intimate nature of the school makes this scenario doubtful. It would

have been difficult to conceal that information from the school counselor and not to bring the materials to work on at school. The counselor has been working at the school for 20 years and not only had a wealth of knowledge about the school and the community; he also had very good relationships with the students. It would have been quite difficult for a student to be engaged in an ODE course without the knowledge of the counselor.

I obtained additional enrolment data from the BC Ministry of Education School Profile Tool. This tool collects information about enrolment, ESL students, class size and students with IEPs. The province tracks information about students enrolled in ODE courses on the district level, not at the school level.

During the February visit, I interviewed seven students of a possible 13 students, three teachers of a possible nine and two of 11 possible parents. During my two days at the school I had an opportunity to observe the activities of the school and to speak informally with many people. These included the school receptionist, the custodian, teachers and parents. There were many parents and other community members at the school over those days because of a basketball tournament. I recorded my observations during my visit and used these observations to shape some of my follow-up discussions that I had at the school in June 2011.

I returned to the school on June 1st and June 2nd, 2011. I interviewed an additional three parents of a possible 11 who were willing or able to be

interviewed on those days. I also conducted follow-up interviews with Dan Kenkel, Dan Lawless and the school counselor. I interviewed an additional 3 of 9 teachers. I also spoke informally with many people and recorded my observations during my visit. I had asked my colleagues and the parents to spread the word and to let people know about my research and to invite anyone interested in participating in the project to contact me at the school. At the same time, I took care to fully inform parents that they were in no way obligated to participate, that they would not realize any direct benefit from the study, and that they could opt out at any time. Regardless, I had one parent come into the school who no longer had any children enrolled at the school, but who wanted to be part of the study because of her son's experience taking online courses.

Of the total potential subjects I interviewed seven of 13 students, five of 11 parents and six of ten teaching/admin staff. All of interviews with the stakeholders were recorded. During the interview process I also took notes. I used the time in the student interviews to work with the students in completing the questionnaires. Prior to conducting the interviews, I had developed a list of questions for each group of stakeholders: students, parents and teachers/staff. I used these questions as guides during my interviews. Given that my research question was so open, it was important for me to be able to hear from the stakeholders about their various challenges and successes. During the interview process I assigned pseudonyms to my interview subjects. The intention was to guarantee to the participants that every effort had been made to keep their

comments and feelings confidential so that they were comfortable speaking with me. Because of the nature of the small community, I have also omitted details in the descriptions of the participants that could possibly be used to identify them. This would include details such as gender, number of years at the school, number of siblings and occupations.

I found during the interview process that people spoke quite freely. In my experience, in a small town, often the opinions or feelings of a person are no secret. Many adults spoke openly to me about the challenges they faced with particular teachers or policies at the school. These interviews took place at school or sometimes in other locations in Valemount.

Data Analysis

I begin this section discussing the method that I used during my research to analyze the qualitative data and quantitative data collected. Following the description of my data analysis, I begin the results chapter.

Data Analysis

My data analysis was guided by the text *Qualitative Data* (2003) by Auerbach and Silverstein and by Bassey's (1999) text *Case Study Research in Educational Settings*. I decided to follow grounded theory coding and to do the coding by hand without the aid of a computer program. After conducting the interviews, I used my recordings and my notes to transcribe the interviews. Using the interview transcripts, the raw text, I then proceeded to read through the

transcripts and to pull out any text that was relevant to my research concerns. I used a generic word processor to create a new document that contained only the most relevant text from my raw text. This selected text was broken up so as to preserve the distinction between the texts generated from different subjects. I found it helpful to keep my central research concern or question in front of me at all times so that I could focus on the relevant text.

As I began to read through the text selections, repeating ideas began to appear. I took the first section of relevant text from my first subject and pasted it into a new file. This was my starter text. As I read through the remainder of the transcript, I copied relevant text that related to the starter text idea and pasted it into the starter text file. After I had exhausted that the list, I continued the process by selecting another section of text and using that as my starter text for a new file. I used a similar manual process to group interviewee remarks according to relevant themes. Occasionally I would have relevant text that did not group with any other idea from the subject. I noted these orphan sections of relevant text. I kept these ideas separate and tried to see how they could combine with relevant text from other subjects.

Then I was able to group the repeating ideas into themes; and as the themes from the research began to emerge, I was able to build an interpretative narrative to summarize what I had learned about my research concern; specifically the successes and challenges of the localized online learning model at

a rural high school. The narrative can be expressed as generalizations about the experiences and concerns of stakeholders in the localized on-line learning program. The generalizations can be tested against the data collected to determine the validity of the findings internally to the study. I have expressed the empirical findings as “fuzzy generalizations” Bassey (1999). This author describes these generalizations as “arising from studies of singularities and typically claim *that it is possible, or likely or unlikely* that what was found in the singularity will be found in similar situations elsewhere: it is a qualitative measure” (p. 12). In the case of my research, singularities are provided by the perspectives of the participants interviewed, and their individual concerns. The likely or possible fit of their statements and concerns with those of others speaking from a similar perspective or situation offers an opportunity for a qualitative measure: a judgement on the researcher’s part on its congruence with emerging thematic patterns and consistencies.

Chapter 4 – Results

I will present the results of the research, presenting the quantitative results first followed by the qualitative results. The qualitative results include the research subject profiles and the results from the interviews and observations. The first section contains the quantitative results gathered from the enrolment data, the school records and the questionnaires. These help to frame the more extended discussion and interpretation of qualitative data, and include the enrolment at Valemount Secondary from 2005 to 2012, as well as listings of the specific courses attempted and completed by students at VS divided into ODE courses and Moodle or L-OL. This last listing was collected informally, but still helps to indicate general trends and broad developments. The last three graphs summarize the small number of items of quantifiable information collected from the questionnaires completed with the students during the interviews.

Quantitative Results

Enrolment and Questionnaire Data

Figure 5. Student Population at Valemount Secondary from 2005-2012

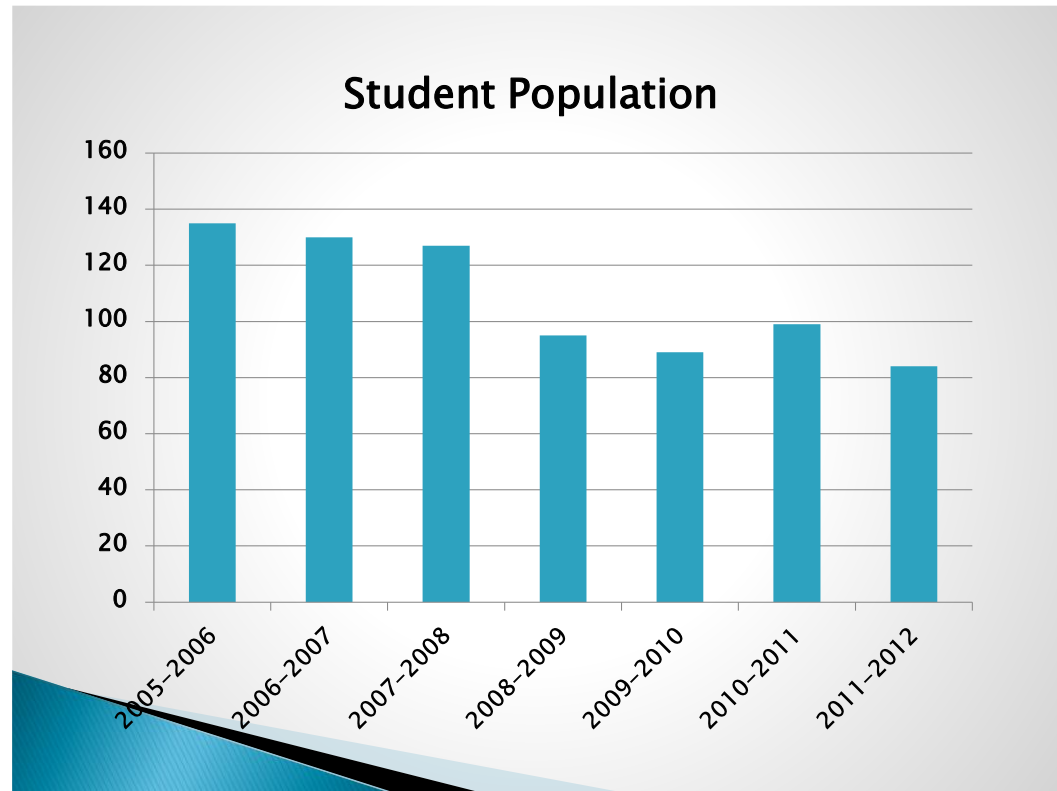


Figure 5 shows the enrolment trend at Valemount Secondary from 2005-2006 to the current school year using data obtained from the BC Ministry of Education School Profile Tool. It shows a 42% decline in enrolment at the school from 135 in 2005 to 84 in 2011. The projected student population for the 2012-2013 school year of less than 75 will be approximately 50% of the 2005-2006 student population. This rapid decline has coincided with the closure of the mill in Valemount and there is no indication that this trend will be reversed anytime soon.

Figure 6. Course Completion Statistics: Distance Education Attempted and Completed

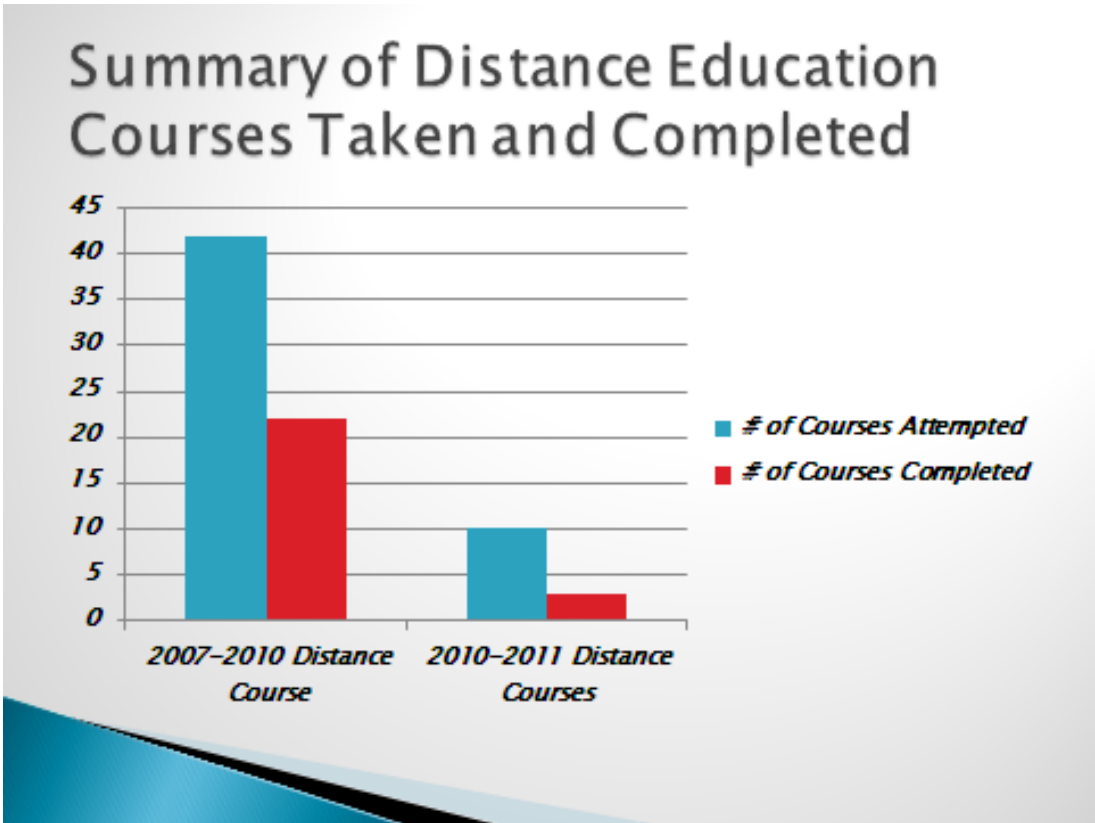


Figure 6 compares the number of Distance Education courses attempted to the number of distance education courses completed at Valemount Secondary from 2007-2011. The 2010-2011 school year is separated to provide a comparison with the Localized On-Line courses offered that same year. The results from 2007-2010 are grouped together to account for the overlap of courses started during one academic year and finished in the next.

Figure 7. Course Completion Statistics: Localized On-Line Learning vs. Distance Education

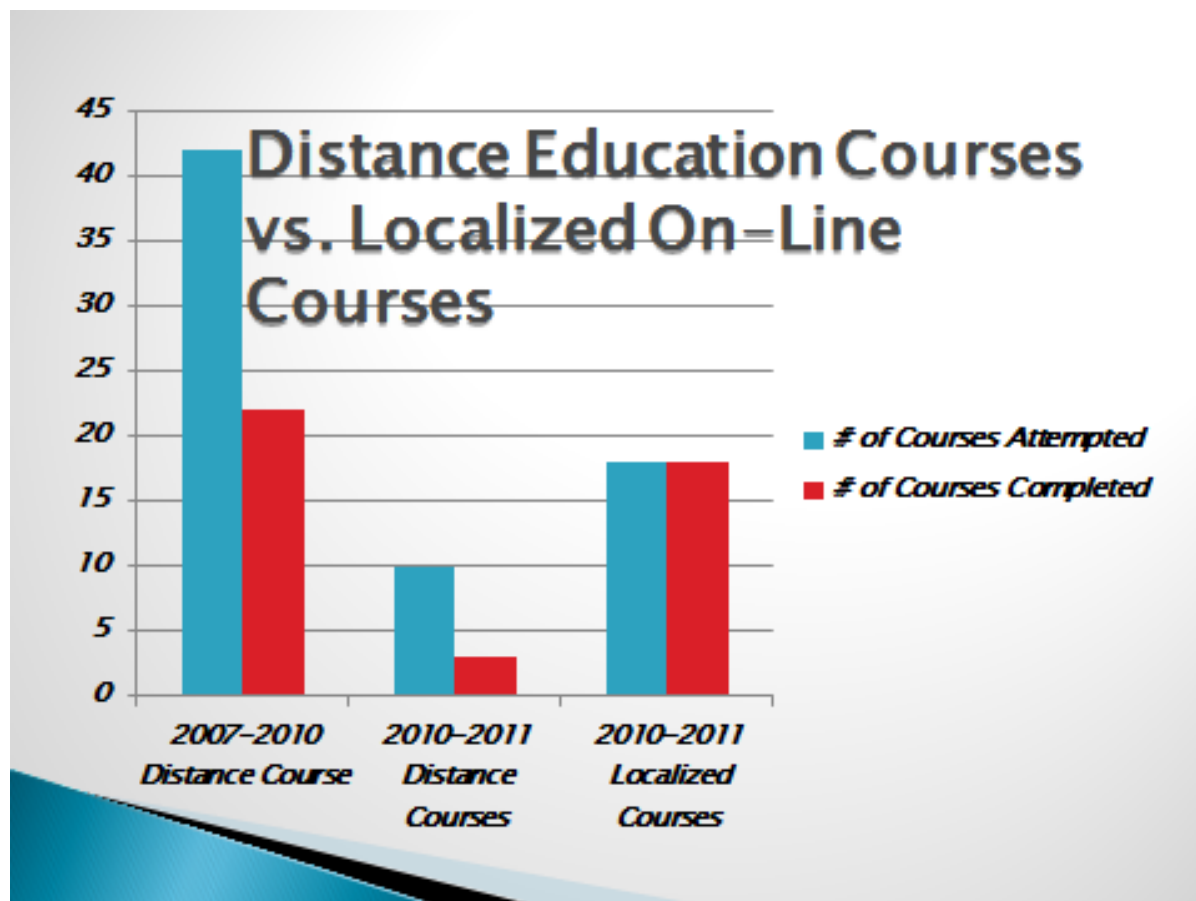


Figure 7 compares the number of Distance Education courses attempted and completed in the 2010-2011 school year to the number of localized on-line learning course attempted and completed in the same year. It is apparent from the graph that the success rate of the localized on-line program of 100% is far superior to the 50% success rate of the distance education courses. Again the distance education courses from 2007-2010 are grouped together which gives a clear picture of the overall trend of course completion rates during that time period.

Figure 8. Why Did You Enroll in an ODE Course?

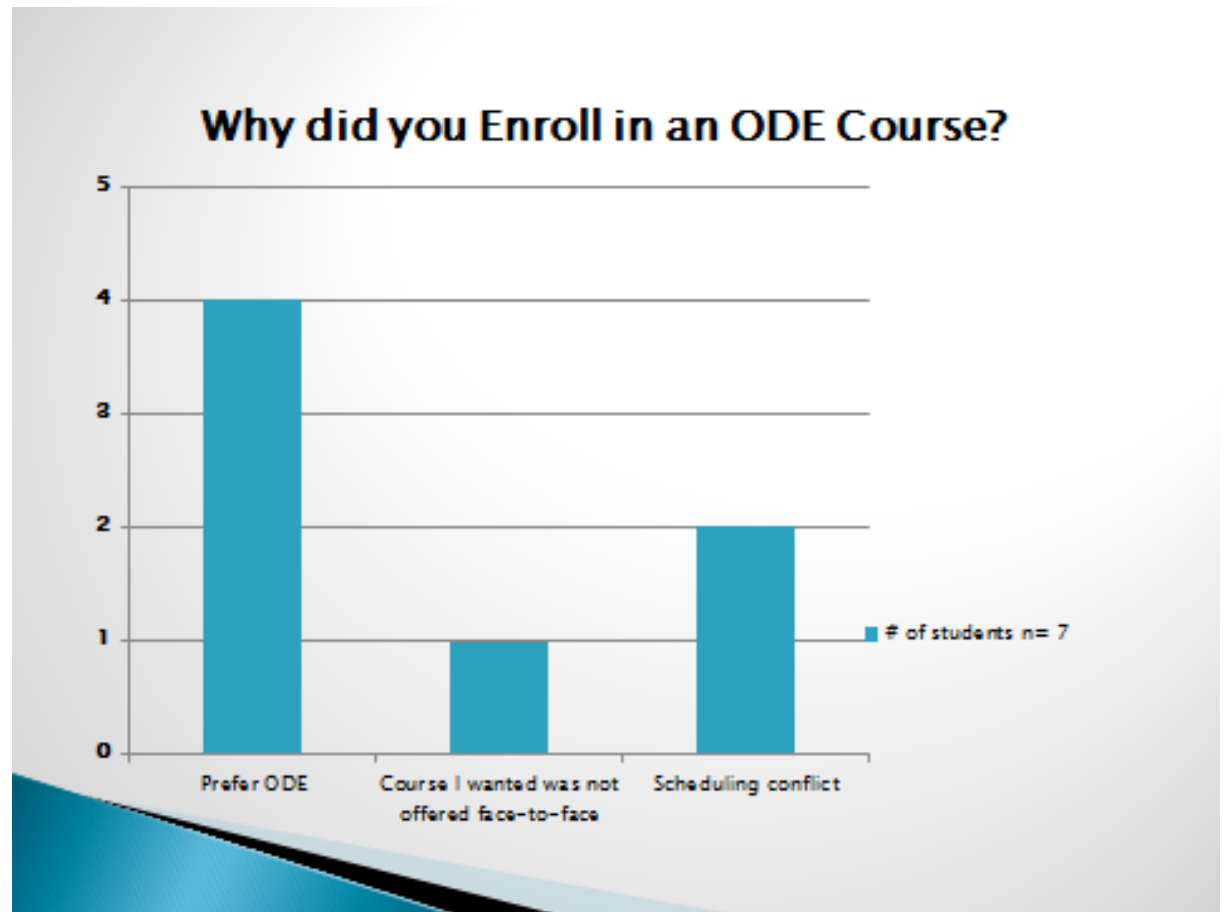


Figure 8 shows the summary of the responses from the 7 students who completed the questionnaire. Students were asked why they chose to enroll in an ODE course. Some of the students were currently enrolled in ODE courses and some had been ODE students in the previous year. Students were given a list of options to choose from or asked to give their own answer.

Figure 9. Why Are You Enrolled in a Moodle Block?

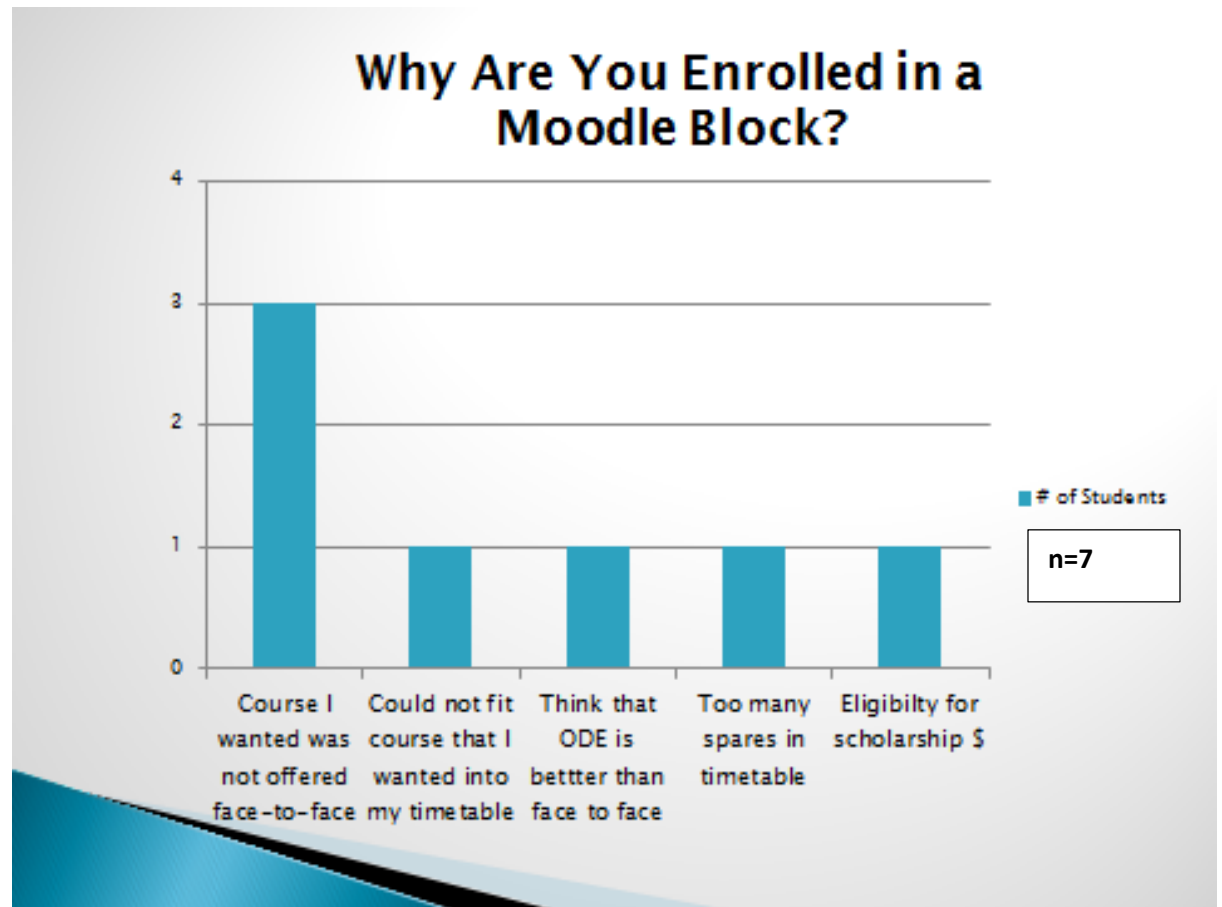


Figure 9 shows the summary of the responses from the 7 students who completed the questionnaire. Students were asked why they choose to enroll in a Moodle⁹ course, and were given a list of options to choose from or to give their own answer.

⁹ Moodle is the informal term used by students to describe L-OL courses.

Figure 10. What is the Best Part of the Moodle Program?

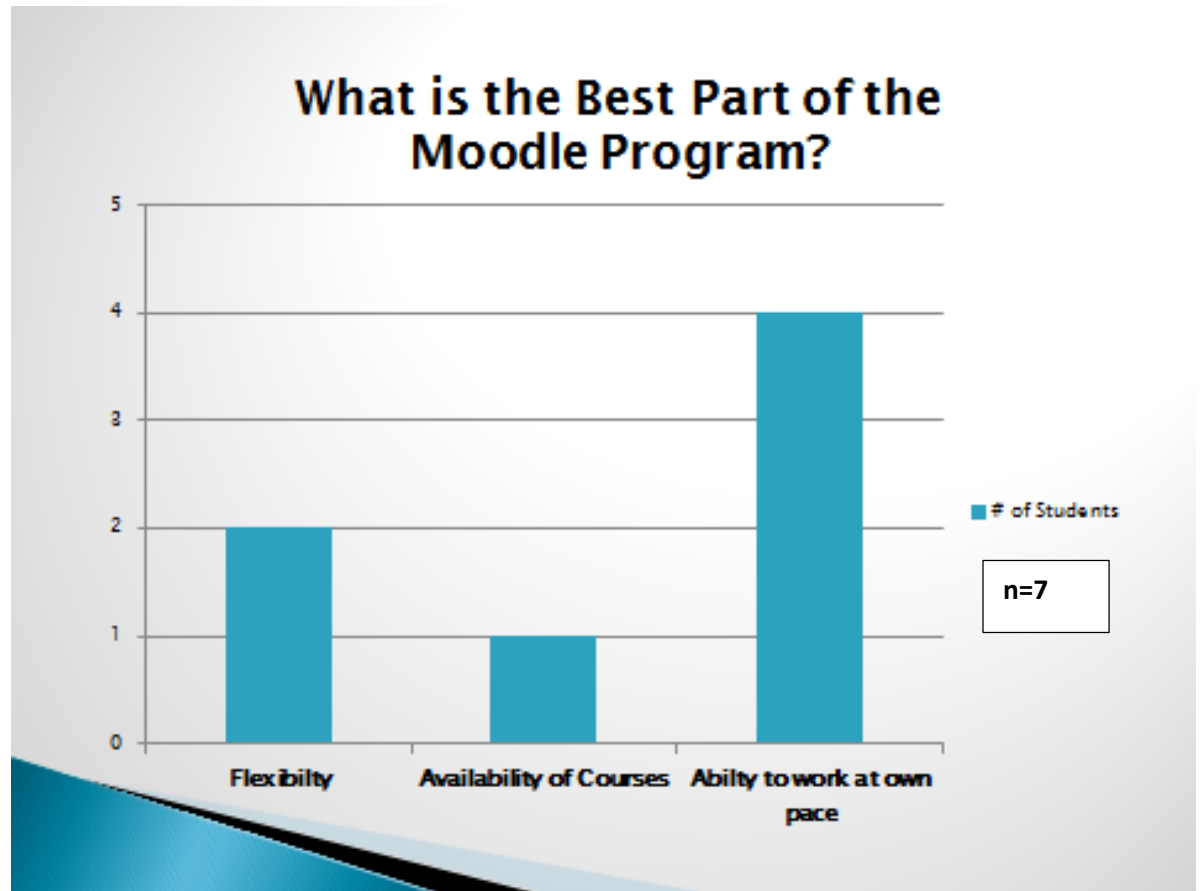


Figure 10 shows the summary of the responses from the 7 students who completed the questionnaire. Students were asked what they considered to be the best part of the Moodle Program, and as in the case with the previous questions, were given a list of options to choose from or asked to give their own answer.

Qualitative Results

I used the data from the questionnaires to compile the following Research Subject Profiles for each of the 12 subjects interviewed. Following the profiles is a presentation and interpretation of the qualitative data that I collected from the interviews and my observations. The data collected from the interviews is grouped into categories representing the themes that have emerged from the data.

Research Subject Profiles

Students

In general, the students involved in this study were academically competent and responsible individuals who deliberately made choices about course enrolment based on their own needs. If they enrolled in L-OL courses or ODE courses, they typically did not consider how their actions would impact the school or where the funding for their courses would be directed. Their primary concerns were to diversify their timetable and enroll in courses that were of interest and benefit to them.

Jamie

Jamie is a grade 11 student who enrolled in 5 face-to-face courses in her grade 11 year. In addition, she enrolled in one L-OL course and 2 ODE courses. She has

plans to take two additional ODE courses in her grade 12 year. Jamie hopes to attend university and is using the ODE courses to supplement the face to face courses by taking courses that are not available at VS.

Sarah

Sarah is a grade 11 student with a full timetable. She is taking 6 face-to-face courses and 2 ODE courses. She is also completing an ODE course that she started last year but has yet to finish. She plans to take additional ODE courses next year because of a student-teacher personal conflict.

Taylor

Taylor is a grade 11 student who has been having gaps in his timetable. At the start of the year he was enrolled in just 4 face-to-face courses out of a possible 8. He only has one class in the second semester. Taylor is enrolled in two ODE course and one L-OL course out of interest and to fill up his timetable.

Mariah

Mariah is a grade 12 student enrolled in two L-OL courses. She was enrolled in just 5 of 8 courses in her final year of high school before the option to take the L-OL courses became available.

Roxy

Roxy is a grade 12 student who has been successful in her attempts at ODE courses in the past. She completed two out of four ODE courses that she attempted in the 2009-2010 school year. In her grade 12 year she only has 5 of 8 courses. She decided to enroll in two L-OL Courses and has completed both of them in her grade 12 year.

Beyonce

Beyonce is a grade 11 student with a full timetable. She was given credit for an ODE course in her grade 10 year even though she did not actually finish the course because she ran out of time. She is considering taking ODE courses next year because the courses she would like are offered neither face to face nor through the L-OL program. She was enrolled in an ODE course in her grade 11 year but she dropped the course.

Bob

Bob is a grade 12 student enrolled in one L-OL course in his final year of high school. Bob considered taking an ODE course because the course he wanted was not offered through face-to-face instruction but he found it difficult to manage with his face-to-face course load.

Parents

All of the parents interviewed in the study were involved in the school either through volunteering at special events, part of the PAC (Parent Advisory

Council), member of the grad committee or sponsors of the sports teams. They all shared a deep personal commitment to the school and their child's education. Unlike the students interviewed, the parents were aware of the funding structure of L-OL and ODE as they commented on the difficulty balancing the educational needs and desires of their children with the needs of the school and the community.

Mrs. Bartram

Mrs. Bartram homeschooled her 5 children until they started high school. Her older children began high school in grade 10 while her younger children started high school in grade 8. Her younger children enrolled in ODE courses to supplement the courses that were not offered at the high school.

Mrs. Anderson

Mrs. Anderson's older daughter is enrolled in both ODE courses and L-OL courses in her grade 11 year. Her daughter is more successful in the ODE and L-OL courses than the face-to-face courses.

Ms. Thompson

Ms. Thompson had one son who graduated from VS and another son who is currently at the school. Her older son enrolled in an ODE course to supplement the courses offered at VS. She prevented her younger son from taking an ODE course last year because the course was being offered face-to-face at VS.

Ms. MacDonald

Ms. MacDonald's older son graduated from VS a couple of years ago. During that time he successfully completed two ODE courses and was unsuccessful in another. One of the ODE courses he enrolled in was offered at VS while the other ODE course was not. She has another son who is a current student at VS.

Mrs. Smith

Mrs. Smith's older son graduated from VS a few years ago. She currently has one daughter in grade 12 at VS. Her child started three ODE courses and finished one in her grade 11 year. Her daughter completed two L-OL courses in her last year of high school.

Mrs. Van Owen

Mrs. Van Owen does not currently have any children enrolled at Valemount Secondary. Her youngest son graduated from VS a couple of years ago and during his time in high school he attempted and successfully completed 5 ODE courses.

Teachers

More than half of the teachers working at the school were interviewed as part of the study, and their responses vary greatly. There were few commonalities

among the teachers other than a lingering suspicion that L-OL would replace them in the classroom. The root cause of the apprehension of the L-OL model is explained in the results section. All of the teachers interviewed are either parents of current VS students or future VS students or sometimes both. Similar to the parent interview group, they also expressed challenges with balancing the needs of their children along with the needs of the school. However, in their case, this balancing act is compounded as the future of the school is directly linked to the future of their jobs.

Ms. Hepworth

Ms. Hepworth has been teaching at the school for 20 years. Two of her children have graduated from the school and she currently has one child studying at VS. She is using L-OL materials to supplement her classroom instruction for a new course.

Ms. Goodwin

Ms. Goodwin has been teaching at VS for 13 years. She has had very little involvement with the L-OL program at VS.

Mr. Trepanier

Mr. Trepanier has taught at VS for 14 years. He uses the L-OL program as an option for students who failed a course the first time. He uses units from the L-

OL course so that a student could upgrade a few units of a course instead of repeating the entire course.

Mr. Smith

Mr. Smith has worked at Valemount Secondary for over 20 years. His own children are graduates and current students at the school. He was involved in the development of L-OL.

Mr. Dan Kenkel (DK)

Dan Kenkel has been the principal of VS since 2003. As one of the founders of the L-OL model, he is quoted throughout the text, quotes which come not only from my interviews with him but also from his published works in newsletters and journals. As a result his real name is used in this paper.

Mr. Dan Lawless (DL)

Dan Lawless has been a teacher at Valemount Secondary on and off for the past 15 years. His role as the alternate education teacher running the after school program at VS, made the genesis of the L-OL model possible. He is currently the founder, teacher and facilitator of the L-OL program and because of this, his real name is used throughout the text.

Qualitative Results: Interviews and Observations

As described in the introduction, the localized on-line model at VS incorporates elements of the face-to-face model and the ODE model. The interviews and discussions with the stakeholders about the experiences with the localized on-line learning model referenced prior experiences with all of the models of instruction used at VS. It was impossible to discuss the successes and challenges of the localized on-line learning model without discussing the successes and challenges of both the face-to-face model and the ODE model.

Since the localized on-line learning model is a blended model, the roots of that model came up again and again in discussions with stakeholders. In looking at the localized learning model it is necessary to question what need this model was filling. Parents and students had begun to turn away from face-to-face instruction before the localized on-line learning model was implemented. Parents and students had also begun to turn away and question the ODE model before the localized on-line learning model was available.

The results from the interviews are grouped into three major sections. The first section is Challenges and Successes with the Face-to-Face Model, the second section is Challenges and Successes with the ODE Model and the final section is Challenges and Successes with the Localized On-Line Learning Model.

FACE-TO-FACE MODEL

Stakeholders at VS were turning towards ODE but it wasn't only for what ODE was offering them but as a result of their frustrations with the face-to-face

model. It is illuminating to reveal why both parents and students began to turn away from face-to-face instruction. Many parents and students experienced frustrations with the local schooling experience at VS. Many of these frustrations were not born from the lack of academic choice at VS, but rather at the operation of the school itself. The conditions that were most contentious were the staffing and the lack of academic standards

FACE TO FACE MODEL CHALLENGES: STAFFING

Parents are aware of how seniority and qualifications can occasionally create less desirable options for who is assigned to teach a particular class. Many of the teachers at Valemount are specialists in one area, but they often have to teach outside of their subject area to fill up their timetable.

Parents and students explain the issue from their perspectives. “More senior teachers are given preference for what courses to teach, but are often not the most qualified to teach them” (Mrs. Bartram). This stressful situation leads to occasional student-teacher conflicts as described by the following parents and student. “My daughter couldn’t take courses from a teacher (face to face) because the teacher didn’t really know the material. Teachers try to be their friends instead of their teachers and they always have the same teachers ” (Mrs. Smith). Sarah, a student, confirms this: “I am not learning well from the classroom teacher.” Another parent expresses a related challenge. “My child had a conflict with a teacher at the school but there is no other option except for taking an online course to get that same course” (Mrs. Bartram).

Because of the lack of options many senior academic course are oversubscribed, “Teachers are pressuring kids to sign up for the courses that they are teaching then seeing the students drop out by the end of the month because it is not working” (DK). For funding purposes students are encouraged to stay in the course for the first month. After the first month the school receives funding for that student in that particular course. If they decide to drop out after the first month, they are not penalized academically but they are left with a spare block in their timetable. Students are encouraged to fill up their timetable at the start of the semester. However, for many students in grades 11 or 12 when outside of a mandatory course block (example Socials Studies 11, English 12 or Math 11) there are usually only one or two options.

A closer look at the VS timetable for the 2010-2011 school year (Appendix C) illuminates the options available to students. For example, during the first semester in third block, grade 11 and 12 students have a choice between Biology 11 and Metalwork 11/12. In fourth block, senior students have a choice between Art 9-12, Math 12 or Chemistry 11. As a result “senior science courses are oversubscribed because there are no other choices for students. There are more students in class but they are weaker academic students” (Mr. Trepanier). These factors create a situation of under qualified teachers teaching courses that are often not the first choice for many students. It is understandable that this would intensify the level of frustration and interpersonal conflicts for both the students and teachers.

Some teachers at the school have tried to alleviate the tensions by applying to reduce their FTE (Full-Time Equivalent) thereby minimizing the courses they teach outside their subject area and freeing up potential teaching blocks for lower seniority teachers. However, the School Board has discouraged this and penalized teachers who attempt to do this on a regular basis. “Teachers try and reduce FTE to increase school diversity (increase other teachers’ teaching assignments) but the board does not allow it” (DK). This creates further tensions as teachers are jostling for classes in order to fill-up their timetables, while others are struggling to get enough classes to maintain their FTE status and their salary level.

Teachers, such as Ms. Hepworth, are as keenly aware as the parents of the dynamic created by too few teachers and too many courses. “Consistency here is a patchwork of trying to give the best to students when we are not qualified for all that we teach. We don’t get to develop what we are doing because we are always doing something different.” In this situation parents begin to look for options for the children. One parent summarizes the dilemma, “What is better, having a qualified ODE teacher or an unqualified face to face teacher?” (Mrs. Bartram)

FACE TO FACE MODEL CHALLENGES: ACADEMIC STANDARDS

Stakeholders appreciate the challenges that the teachers face in teaching senior academic courses to multi-grade and varying ability level classes. As mentioned in the Introduction, senior academic electives are offered every year to increase

the potential pool of students for enrolment. The other side to offering too few classes on a rotating schedule is that often the class composition for senior academic classes is not amenable to high academic standards.

Many parents also take issue with the apparent lack of academic discipline and the low expectations both teachers and students have for themselves. “My daughter took an online course because I didn’t believe the school-based course was appropriate” (Mrs. Bartram). Another parent comments on the appearance of the school during class time. “The high school seems very disorganized and lacks protocol. The teachers are reluctant to contact the parents when the kids are missing or not behaving. There are always kids in the hallways during class time” (Mrs. Smith). Parents understand the challenges teachers face, “The level of skill in classes is so different so it is hard for teachers to keep kids to deadlines. Deadlines are vague and inflexible and so kids develop poor study habits” (Mrs. Bartram). Another parent describes her perspective. “The school teaches to the lowest level of students. There are lots of gaps” (Mrs. Van Owen).

In addition to having multi-grade electives such as Foods 9-12 with students enrolled in either Foods 9/10 or Foods 11/12, teachers also have to accommodate students with identified learning or behavior challenges on IEPs (Individual Education Plans) in the classroom “With IEPs teachers are getting stretched to meet the challenges in the classroom, everyone on an individual plan so there is little direct teaching” (Ms. Hepworth). With multiple grade levels

and ability levels in the same class, teachers are hard pressed to provide direct instruction leaving students to less teacher directed learning. From the students' perspective, this provides less clarity in assignment deadlines and many opportunities for getting away with sub-standard performance.

FACE TO FACE MODEL CHALLENGES: COURSE SELECTION

Students also cite the lack of course options as one of the reasons contributing to their enrolment in ODE. Many of the senior science courses are either not offered at VS or are offered only on semi-regular basis. Students look to outside course providers when they are not able to take the courses they need to full post-secondary eligibility requirements.

Many students mention an interest in taking Physics and Chemistry courses online because they were not offered at VS. "I am taking Physics 11 online because it is not offered at the school" (Sarah). "The course I wanted was not offered at VS" (Taylor). Another group of students plans to work together in an ODE courses in their grade 12 year. "Chemistry 12 is not being offered next year so I am going to take it online with some friends" (Beyonce). "My daughter is taking Chemistry 12 online next year in a group of three students" (Mrs. Bartram).

Other students take additional courses online after graduation because the courses were not available when they were a student. "I wanted to take Physics 11, but it was not offered at the school so I will have to take it online. It is

required for the program I want to apply to after graduation” (Bob). “It is difficult when you want a course that is not offered at the school. My older son took Geography 12 on his own after he graduated because it was not offered” (Ms. Thompson).

Course selection, academic standards and staffing issues are all cited by parents, students and teachers as challenges with the face-to-face model. These are all contributing reasons for the turn away from face to face instruction.

FACE TO FACE MODEL SUCCESS: RELATIONSHIPS & IMMEDIACY

Despite the challenges experienced by many stakeholders with the face-to-face model at VS, people repeatedly express the positive aspects of the close knit community at the school. Students describe their classroom experiences with their teachers and the immediacy of getting help when it is needed. “I like classroom courses better because you can get help right away” (Beyonce). Another student echoes Beyonce’s comment. “It is easier in the classroom because you can get help right away” (Roxy).¹⁰

In keeping with the characteristics of rural learners identified in the literature reviewed above, students describe the classroom environment positively and stress the importance of knowing the teacher. “It does make a difference to know the teachers” (Bob). Students are aware that the content of the courses does not change very much whether the course is taught on-line or in the

¹⁰ Sarah expresses a similar sentiment “Face to face is better because you get the information right away.”

classroom. “The material is pretty much the same whether it is online or in the classroom. I like knowing the teacher. It is helpful” (Sarah). “I prefer the face-to-face teaching with the instructor in front of you” (Jamie).

Students also identify the advantages of having the same teachers each year.

“Teachers know you in the small school and they have had you in classes before so they know how you learn and what you need. I came from a big city and here everyone knows everyone” (Roxy). “I like the classes because of the personal connection with the teachers” (Beyonce). The class size and atmosphere are also positive aspects of the small school –again reflecting findings in other research on rural learners. “I like small classes. Classroom classes are more fun” (Sarah).

ONLINE DISTANCE EDUCATION MODEL

As explained in the introduction, when the funding model for ODE courses changed in 2006 there was suddenly a wealth of options available to rural secondary students. Before 2006, VS students had an option of enrolling in paper-based correspondence courses through the School District 57 Distance Education School. Now a VS student can choose from a virtual catalogue of ODE courses. This expansion of options for students came right at a time when VS was being squeezed by enrolment decline.

The challenges of the ODE model are articulated both from administration’s and student’s points of view. The administration experiences challenges with the

increased ODE enrolment and on-site supervision of those student taking ODE courses. The students experience challenges with some of the environmental and personal learning conditions of ODE as described by Boyd (2004) and mentioned above in the literature review, such as the need to be a self-directed learners, take initiative and have a suitable place to study.

Even with a 50% success rate in ODE courses, students and parents express satisfaction with certain aspects of the ODE model. Students enjoy the flexibility of the ODE courses and the option to work at their own pace while recognizing that it is important to be a motivated student. Parents and student also mention that working in group facilitates successful learning in an ODE course.

ONLINE DISTANCE EDUCATION MODEL CHALLENGE: STUDENT ENROLMENT

The stakeholders at VS express frustration with the limitations of the face-to-face model to meet the needs of the students. Until the introduction of the localized learning program, the only other option available to parents and students was to pursue ODE options. The school does not encourage parents and students to enroll in ODE courses, going as far as to actively discourage parents and students. An excerpt from the February 2011 School Newsletter outlines the school's position on ODE in an article written by the principal entitled *Opting Out of Classes for Online Options*.

Is individual choice in education always a good thing? What about when the rights of individuals get in the way of the rights of others? That's the

situation I find myself in when it comes to discussions about online learning. Even with heavily subsidized school budgets, rural school like ours struggle to offer academic and elective options that kids need and want. When students opt of existing classes, and sign up for classes elsewhere that funding follows them.... The rights of students and parents to have a viable school with teachers and classroom instruction are threatened. It ends up being really about the rights of individual choice versus rights to a school education. You can't have it both ways in a community our size. (p. 1)

As some parents and students began to explore ODE options they were often met with resistance from the school.

I experienced resistance from the school when I tried to enroll my son in outside courses. Many people in Valemount were misinformed about what other courses would cost. They thought they would have to pay for them. Parents are not told about all of the options for their students and there are lots of difficulties in navigating the system. I figured it out on my own. (Mrs. Van Owen)

There was a different reaction from the school depending on whether the courses were offered at the school or not. If the course was not offered at the school, there was much more understanding for the student's decision to pursue the ODE option. If the course was available at the school, parents and students

experienced resistance and, indeed, dismay concerning the student's decision not to enroll in the face-to-face option. "There was a different reaction when he took an ODE courses that was offered at the school, but my son wanted to take another course during the same time. Why stand in the way of a motivated child?" (Ms. MacDonald)

Parents are well aware of the funding model and how taking ODE courses takes money away from VS. "Online courses don't get funding for the school so the school discourages parents from taking online courses. I realize the school needs the money but my child didn't like the teacher" (Mrs. Smith). Parents experience conflicting emotions. Many want to support the school and their child at the same time and find that these two desires are in conflict. "I wanted to do face-to-face to support the school, but my daughter suffered (in the classroom). No choice, I knew funding would go elsewhere but it was best for my daughter" (Mrs. Anderson). Choosing the option best for their child was the choice made by most parents. "You should support your child when he wants to pursue academic goals" (Ms. MacDonald). "As a parent I have to do what is best for my child" (Mrs. Van Owen).

Some parents sided with Valemount as a whole when asked to choose between their children's needs and those of the community. "Child vs. the community, putting the child first has a negative consequence on the community because if we lose specialist teachers it would be hard to find qualified people to work with

students. I would not allow my son to take an online course even though he had a spare because the funding would go elsewhere” (Ms. Thompson).

ODE CHALLENGE: SUPERVISION

Enrolment in ODE has presented a new dilemma for administrators and teachers in rural schools. Who is responsible for supervising students taking ODE courses during the school day? Should these students be allowed to remain on school property when they are not enrolled in face-to-face classes? McBride Secondary School is the closest secondary school to Valemount Secondary (Figure 1). This school experiences problems similar to those at Valemount in that many of McBride’s students take ODE courses offered by outside districts. These students are allowed to stay at the school, even when not taking face-to-face courses, to work on their ODE courses. In February 2011 after a parent complained to the school board, the school reversed a decision that it had made regarding rules for students to remain on school property while working on ODE courses. A student taking two of four courses face-to-face at McBride Secondary was asked to leave the school when she was not enrolled in face-to-face classes. Her father describes the situation. “The problem here is not that my daughter can’t get the education she needs but that she isn’t allowed to access it in our local secondary school. What they’re doing is taking this kid and saying ‘Get off school property for this block.’ Well it’s minus 20 and she’s 10 km from home” (School Reverses Decision, 2011). The student was permitted to remain on school property despite the objections from the staff and administration.

Valemount Secondary is experiencing similar challenges with students who are in school but not enrolled in classes during that time period. There are limited places that a student can go in a small school. Since many students take the bus, it is not feasible for them to go home and attend only during their face to face blocks. As the principal explains, the guidelines at VS are that the students are

either here and working or not here at all. When students are not taking our courses we don't have the right to ask what they are working on.

How do we know what course they are taking unless they decided to tell us? In big city schools kids are not allowed to have spares. What can you do in Valemount? We have too many gaps in our timetable and not enough options for students (DK).

Given the general lack of resources at Valemount and the limitations of the funding model, the school as well as the parents find themselves in contexts where any choice forces inequitable results on the individual student, the community or school personnel who are answerable to both.

ODE CHALLENGE: ENVIRONMENTAL AND PERSONAL

Some of the students express challenges with the environmental and technological aspects of ODE. The operation of the school puts up significant challenges for some students since YouTube and other similar sites are blocked at the school. While many students have internet access at home, some of these connections are slow as is common in rural areas. One student experienced

frustration with trying to download content and watch videos that were a part of her course. It was difficult for her to do it at home because of the slow connection and it was also difficult at school. "YouTube was blocked at school so I couldn't access some of the videos that I needed for the course" (Taylor). Many students also work on their ODE courses during their spare blocks at school. This is also the time when many of their classmates also had spare blocks. "It is hard to find the motivation when friends have spares and you want to talk to them"(Taylor). Finally, others had difficulties that are common to online or distance courses in almost any environment: "I had to wait to get an answer to a problem so I left it and went on to something else" (Roxy).

The distance education school in School District 57 CIDES (Central Interior Distance Education School) offers both paper based and online courses. Until very recently, the vast majority of courses were paper based. "My son took paper based courses through the district. I could see why kids are not successful in this program. It is slow and difficult to contact instructors" (Ms. Thompson). An academically very strong student with excellent parental support describes her experience taking German course through paper-based distance education. "Taking a paper based course was a lot harder because you had to teach yourself the course yourself. Even though my mom spoke German it took a whole year to almost finish the course"(Beyonce). Even motivated and capable face-to-face students find it difficult to stay motivated in an ODE course. "It is hard to keep motivated when you realize how big the course is" (Roxy). Another student

describes her experience taking a paper based course through CIDES “Even with support from my mom and motivation I still did not finish the course. I was able to pass the course but was not able to complete it on time” (Sarah). The principal made a comment describing the drop-off box for assignments outside the school. “The drop box for dropping off work for correspondence courses looks like a garbage can.” The description of the drop-off box resonates with the students having environmental and personal challenges with ODE courses.

ODE CHALLENGE: SUPPORT

Many ODE courses have different options for contacting the instructor. With the exception of the group of students who took Physics 11, students rarely contact their ODE instructors. “I never accessed the video conferencing option with ODE. I didn’t know the names of my online teachers. My Social Studies 11 teacher changed half-way through the course and I didn’t even realize it” (Roxy). As one parent describes, “It is hard to find time to work on the online course because the kids are so involved in sports and volunteer programs” (Mrs. Bartram).

Other parents and students stayed away from ODE knowing the demands it would place on them and their children. “My son wouldn’t be good by himself on the computer. He has a learning disability and that makes computer learning more difficult” (Ms. Thompson). A teacher/parent echoes this sentiment when reflecting on the future educational options for her daughter. “I am worried

about my younger daughter all of the time. Neither of us is motivated enough to take the courses on-line” (Ms. Hepworth).

ODE MODEL SUCCESS: ENVIRONMENTAL AND PERSONAL

As outlined in the quantitative results section, many students were unsuccessful in ODE courses. Despite the repeated lack of success, both students and parents continued to turn towards ODE as a viable option. As described by stakeholders, some of the environmental conditions for ODE courses can be helpful for some students. “My daughter is less distracted at home than at school” (Mrs. Anderson). Other students possess personal and learning characteristics that are favourable for ODE. For motivated and interested students, ODE courses can offer a wider range of options. “ODE courses are more fun because you get to decide what to do and there is no one setting the deadlines for you” (Beyonce). Students who like to work at their own pace or during different times of the day enjoy the flexibility of online courses. “I pace myself in an online course vs. following the pace of the classroom” (Roxy).

ODE courses give students more time to digest the content of the course. “I take longer to process information and online I could take as much time as I needed to. In the classroom things are too rushed. I am stubborn and like sometimes to teach myself at my own pace so it is better” (Taylor).

Even if it they didn’t completely articulate it, parents and students seemed to know what is necessary to be successful in an ODE course. They appeared to

have a clear understanding of the importance of being a motivated and independent learner, as these examples show:

- “Online is good for a certain kind of kid” (Mrs. Smith).
- “My motivated son took paper based course by correspondence” (Ms. Thompson).
- “It depends on the student and how much they believe they need the course” (Ms. Hepworth).
- “I like ODE because you do it on your own, but you need to make sure you are motivated” (Sarah).

Other parents and students comment on the layout of the courses, the quality of the instructors and the pace of the course, for example:

- “Online courses come with a realistic completion plan and on-line teachers are very supportive” (Mrs. Bartram).
- “The teachers are good and reply to your email right away. The ODE teachers are knowledgeable in the subject matter” (Sarah).
- “Online courses looks super organized. If she needed help she would email and get a response right away” (Mrs. Smith).
- “Doing it on your own can be faster than with a regular teacher” (Bob).

It is clear that both parents and students are pleased with certain aspects of ODE courses. One student had her first taste of real success in an ODE course as described by her parent. “She was struggling in the classroom setting. Her self-

perception was that she was stupid and it made her not motivated. She earned a high mark in her ODE course. It was her first taste of success and she felt smart” (Mrs. Anderson).

ODE SUCCESS: PARENTAL SUPPORT

The parents, students and teachers acknowledge that support from a parent or mentor is critical for ODE success. One example is of a parent who was instrumental in organizing the group of students who first took the Physics 11 course online as was described in the introduction. “I picked up the kids from school brought them to my house for the block and they worked in a group. I made a semester long study schedule in advance and held the kids to their commitment” (Mrs. Van Owen). A parent whose son was part of that group comments on the importance of the mentor. “My son was successful in the ODE course because there was a parent mentor that kept them [the group of enrolled students] on task. She would put together the block of time with the video instructor. He tried another ODE courses on his own and it was completely different. He did not complete the course despite being a strong and good student” (Ms. MacDonald).

A recurring comment from parents and teachers underscores the team effort required on the part of the parents and students to be successful in an ODE course. “It’s not just the child who takes the online course”(Ms. Hepworth).¹¹ –

¹¹ Mrs. Anderson expresses a similar comment when she says, “the parent and child take the course.”

the implication being that the parent is also effectively enrolled as well. Even parents with no experience of having their child work on ODE courses in a group expressed a similar sentiment. “It helps to work in a group of students” (Mrs. Smith).

LOCALIZED ON-LINE LEARNING

Stakeholder comments indicated that the localized on-line learning model developed at VS using L-OL provides more choice for parents, students and staff. The section describes how some students came to have a “L-OL block” and the perceptions and limitations of the model. The successes identified in interviews include the retention of the relationship between teacher and student and the increased accountability on both sides of this relationship. The future direction of the local-online program is discussed at the end of this section.

LOCALIZED ON-LINE LEARNING: WHY L-OL?

By the time the local online program was introduced at Valemount Secondary, many teachers, parents and students had experienced ODE courses through many different institutions. For many of the students who registered in L-OL at the beginning of September 2010, it was not an intentional choice to support the school, but as a second choice once they had run out of options for face to face courses. The local and flexible nature of the program allowed it to be advertised and integrated in a manner similarly local and informal. Mr. Lawless simply recruited students in the hallway, and this humble effort appears to have had the biggest impact on enrolment in L-OL courses. As one student describes her

decision to take a photography course, “I had a free block in my timetable and Mr. Lawless offered me the course”(Mariah). Another student notes that she “dropped a course and so had a spare and took the L-OL course” (Bob). Many students had too many spares and no courses to fill their timetable. “I had three spares and one course in the first semester. I decided to take Family Studies through L-OL” (Roxy).

There are a few parents who were aware of the L-OL program, and who knew the difference between ODE and L-OL courses. They encouraged their children to take the L-OL course so the funding would stay at the school. “I wanted to enroll (my daughter) in L-OL so funding would go to school” (Mrs. Anderson). At the same time, many parents were not aware of the L-OL program or how the funding would be retained if students took L-OL courses instead of ODE.

LOCALIZED ON-LINE LEARNING CHALLENGE: PERCEPTIONS OF L-OL

The way that the localized on-line learning model was introduced at the school initially resulted in some confusion and suspicion from parents and staff. The principal describes the strategy used to introduce the program.

The development of the program was kind of slow and organic, instead of rolling it out like some big program, it started very small so that glitches could be controlled in the early stages. It has grown as it has needed to by meeting the needs of the community. Many parents were not really aware of L-OL, like it or not it is the new reality. Most parents on the PAC

(Parents Advisory Council) had their kids take some of their courses elsewhere (DK).

The results of this slow unveiling and the limited, cautious and experimental approach taken in individual courses were mistrust and resentment. As one teacher describes it, “I knew some kids were taking photography but the program was very hush-hush and under the table because it was believed in conflict with us and our face-to-face courses” (Ms. Hepworth). Another teacher describes her impressions of L-OL. “I don’t know very much about L-OL. I’ve seen a few of the courses and my impression is that it is correspondence classes with limited teacher involvement. It evolved very quickly; suddenly kids had a L-OL block” (Ms. Goodwin).

Some parents were not aware that this was an option for their children until too late in the semester. “I didn’t know about the L-OL program until later this year (too late to take a L-OL course) and I am on the PAC. I would have wanted my child to take a L-OL courses so the funding would go to the school” (Mrs. Bartram).¹²

Even with limited knowledge of the program, teachers were ready to offer their opinions of it. “The program pulls kids out of our classes but on the other hand gives kids options. L-OL is very loosey goosey, kids taking it are borderline

¹² Mrs. Smith expressed a similar concern when she says, “I was not aware that Moodle courses were available”

passing and it is carrying them through the courses to get the credit. All teachers are doing the same and trying to get kids to pass. L-OL is geared to the student. It is easier, not challenging and more of the “What do you think?” kind of questions” (Ms. Hepworth).

Another teacher describes his opinion of L-OL in comparison to ODE. “It is an economic saviour that is relegating students to 2nd class education in the rural areas. We are short changing our rural students. L-OL is a poor second choice. First choice is a teacher in a classroom with students” (Mr. Trepanier).

Teachers tend to focus on the distinction between face-to-face classes and L-OL classes. “There is a difference between expectations of the courses in class and the online version; it is not as deep in the online version. Girls taking the L-OL courses are responsible kids; once they start they are motivated to get it done. Boys taking the L-OL courses are not the most academic, but they are conscientious students. The courses are not difficult; it is the nature of the L-OL program” (Ms. Goodwin).

LOCALIZED ON-LINE LEARNING CHALLENGE: LIMITATIONS

The courses offered through the L-OL program are primarily senior elective courses and while necessary for graduation, they don’t fulfill the pre-requisites for some post-secondary programs, such as university entrance requirements. The repertoire of courses is limited by the specialist knowledge of the one teacher administering the L-OL program. While there is a demand for senior

science courses, for example, the L-OL program is unable to fill that need because of a lack of teacher expertise.

The teacher administering the program, Mr. Lawless, is also the one preparing the courses for the online environment. He is not an IT specialist, but he has become a self-taught one due to necessity. He is responsible for the technological aspect of the L-OL program as well as the content of the courses. It is a significant challenge, and given that the learning curve is steep, he is sometimes not able to keep up with the demand. "There is still a resistance to the L-OL model and fear of the unknown. I am trying to develop more of the tech stuff so I could offer more courses" (DL).

LOCALIZED ON-LINE LEARNING SUCCESS: IMMEDIACY AND RELATIONSHIPS

As shown in Figure 7 above, all of the students that enrolled in L-OL courses were successful. Each course attempted was completed in the case of each and every student. In addition to academic success many students describe a beneficial teacher-student relationship. "With L-OL courses Mr. Lawless was there to help me right away; with ODE [courses] I had to figure it out on my own" (Roxy). For the students, the ability to meet with Mr. Lawless and ask for help is important. "It is easier to get help from Mr. Lawless than to try and solve the problem on my own. I like being able to talk to my teacher" (Taylor). Clarification and help were more readily available for the students. "The teacher at the school makes it much easier to ask questions" (Jamie).

The program's flexibility and responsiveness to the students' needs is also described by the students. "I like being able to do L-OL on my own time and outside of school. I could get answers to my questions right away" (Mariah). As one student describes her relationship with the L-OL teacher, "We actually know the teacher so he cares about you and what you are doing" (Bob).

LOCALIZED ON-LINE LEARNING SUCCESS: ACCOUNTABILITY

The teacher and administrator involved in the program are able to track and supervise students registered in L-OL courses in much the same way that students registered in face to face courses are tracked.

With other online courses there is no accountability, but with the L-OL block they are enrolled same as if they are at school, they are supervised and attendance is taken. We supervise their learning not just their attendance. The L-OL program is a success. It prevents kids from taking funding elsewhere and there are better completion rates. There is someone on top of it at the school and keeping kids accountable and centralized (DK).

As the teacher administering the L-OL program describes it "The success rate was 100%. The ability to track students in house makes a big difference" (DL).

There is a scholarship program at UNBC (University of Northern British Columbia) called Northern Scholars which recognizes the top grade 11 student in each secondary school in Northern BC and awards them with a four year scholarship

covering tuition costs to UNBC. To be eligible for the scholarship, students must take all of their courses through their home school district. Students who take courses outside of their district will be ineligible for the scholarship. One student cites this as a reason for taking a L-OL course. “I took L-OL because it allows me to still be eligible for the scholarship” (Jamie).

LOCALIZED ON-LINE LEARNING FUTURE: OPTIONS AND OPPORTUNITIES

One parent describes the pattern she sees in Valemount and illustrates how it relates to her life in Germany. “The same thing is happening in Germany. I used to live in a rural area in Germany and the government wanted to close the school but the community fought back. Rural areas are united, shrinking is universal” (Ms. Thompson). Valemount is shrinking and the L-OL program is undeniably changing the way that VS operates and will continue to operate in the future. One teacher made a difficult decision at the end of the 2011 school year. “We are leaving town to find a place best for my family so that my kids could have face-to-face courses” (Mr. Trepanier).

Despite the departure of some stakeholders, a parent involved in the movement to replace the old high school describes her commitment to the school. “I fought very hard to get this school built, but now we need to fill it with a positive learning environment” (Mrs. Bartram). The staff of VS are looking at ways to continue offering L-OL courses and to expand the repertoire of what they can do locally.

The future of the localized on-line learning model could conceivably follow a number of different paths and options. One option would be to use the expertise in L-OL to promote a locally developed course hosted at the district level and made available to students at other schools. There is a course at VS that has been developed over many years. It is an environmental education course which has components of hunting, tracking and plant and animal identification.

The L-OL program is growing and developing in such a way, much more than I thought we would. We want to pull kids from elsewhere, not poaching from other rural school, but offering them an alternative however; we can't do it because the school is not a dedicated DL site in the district. If our school can develop a course that is unique then CIDES will host it and students that take it will return funding to Valemount (DK).

Another option would encourage the diversification of ODE courses in the district and allocate some of the teaching positions to rural schools so rural teachers could supplement their face-to-face timetable with ODE courses. "All of the DL stuff is centralized in the big city. Why not allocate some of the teaching positions in the rural areas to use up the space and employ teachers?" (DK)

As the L-OL program develops it could also be used to facilitate a type of Open School Model for VS at grades 11 & 12. Students would probably end up with more L-OL blocks than face-to-face classes and more teachers could be brought in to help mentor students in senior academic courses.

Chapter 5- Discussion & Recommendations

The story of the town of Valemount is not unique; indeed for the BC interior the story is typical. The local plant or mill closes, people move away and soon the town is a shadow of its former self. While change may be an everyday part of life in urban centres, change is infrequent in rural areas. When change does occur, the perception of the change can influence the outcome. The change can be seen as a loss: the loss of jobs, the loss of people and the loss of students to fill classes at the high school. At VS I sense a real nostalgia from the teachers and some of the parents about the way things used to be. When the student population was closer to 200 students and the school had a music program, a drama program and enough kids to fill the classes. I hear many people express regret at what has been lost. Michael Corbett's 2005 study of a rural area in Nova Scotia and the patterns of rural education and out-migration documents the profound change happening in fisheries dependent coastal areas in Eastern Canada. Kelly's 2009 article in response to Corbett's study resonates with the conditions in Valemount.

Education, and in particular what is called *rural* education, is premised on loss. This loss is often not fully articulated, but it is deep and abiding. It is registered in efforts to stop the flow of peoples and resources, to resist consolidation and closure of schools, and to attract and retain educators. I want to argue however that such loss can also be

productive in that it unsettles. And within such unsettling lie opportunities to generate new knowledge. (Kelly, 2009, p. 1)

The stakeholders at VS are cognisant of what has been lost and are not optimistic that it can be recovered. Every couple of months there is a new plan to revitalize the economy in Valemount. First it was a gondola up Canoe Mountain, then a casino in the town to entertain bus tours to Jasper or perhaps a roller coaster up Canoe Mountain or a new Corrections Facility. It is doubtful that any of these plans will come to fruition. That is why it is necessary to imagine and work towards a sustainable future for the school and the education of its students. The model developed at VS has the potential to revitalize the high school education of students from rural towns across BC and Canada. Given the universality of shrinking rural communities throughout Canada, many rural schools could look to VS as an example of a sustainable model of learning. The unsettling that has occurred in Valemount has brought the opportunity to generate new knowledge and to create a new model of instruction for rural secondary schools. As Kelly (2009) describes "Rurality will always be characterized by loss. An education for rurality will see loss as an opportunity to re-examine old certainties, to provoke new knowledge and to forge new relations" (p.3). The localized on-line learning model has the potential to provide a sustainable future for VS and for other high schools. It is likely that the model developed at VS could yield similar results and similar successes at other rural secondary schools.

This discussion focuses on the successes of the localized on-line learning model on a more abstract level and seeks to explain the success by drawing on the some of the characteristics of rural learners as outlined in the literature review. The discussion first describes how VS was ripe for change. Following that is an analysis of how the localized on-line learning model drew on the strengths of the rural school and how it combined the positive aspects of both face-to-face and ODE instruction. The discussion includes the limitations of the study, as well as the possibility for the future uses of this model at VS and at other schools and concludes with recommendations for future research.

Success of Localized On-Line Learning Program

The localized on-line learning model is successful on many levels. Success can be measured in the completion rate of the courses, the retention of the local, per-course funding, the diversification of electives and the engagement of students. Success can also be assessed in terms of the continued survival of the school and the community itself. The first part of the discussion talks about the myriad of ways in which the program is successful and then briefly speculates on why the initial wariness on the part of some stakeholders still lingers at the school.

Completion Rate

The quantitative results clearly indicate that the students in the program were successful. Of the 18 courses started by students in the 2010-2011 school year, 18 were completed (Figure 7). During that same time, 10 ODE courses were

started and as of the end of the June 2011, only 3 of them were completed. The principal and the teacher-facilitator of the L-OL program are clearly satisfied with the results of the program, as described above: “The program had a 100% success rate. Ability to track students in house makes a big difference” (DK).

Retention of Funding

The 18 elective courses started and completed using the L-OL program generated a concrete dollar amount for the school. Based on 2010-2011 block funding and not including any other amounts allocated to rural schools, the 18 courses returned \$18, 936 ($18 \times \$1,052$) to the school. Considering the start-up costs which included membership in the BCLN (British Columbia Learning Network), as well as upgrading and installing the L-OL networking system and the teacher’s salary, the costs of the program were recovered by the block funding.

Diversification of Electives

Not only is the program academically and financially successful, it appears to be successful from the students’ point of view. They appreciate having more options for electives and report that they enjoyed the content of the courses. From the questionnaires, the best parts of the L-OL program from the students’ point of view are the ability to work at their own pace and the flexibility (Figure 10). It is easy for them to register for the courses and get the help they need to complete the assignments. Enrolling in L-OL course is as straightforward for

them as enrolling in a face-to-face course. This study does not provide grounds to identify a down side from the students' point of view.

Engagement of Students

In the rural school it is difficult for a student to hide. The teachers know the students and the students know the teachers. While there might be ample places for urban youth to gather during the school day outside of the school, the options in rural areas are limited, usually the school or home. The fight for the right to stay at school is most likely a rural phenomenon; the opposite would be true at urban schools. The L-OL courses provide a way for students to become more engaged at VS. Instead of 18 empty blocks of time, students are engaged during those blocks and working on courses.

Suspicion of the Model

By the time the localized on-line model was introduced, many students and parents had already experienced enrollment in on-line courses. The jump from ODE to L-OL was insignificant for most of them in terms of the technological and course requirements. Indeed, it is possible to say with confidence that the parents and students are ahead of the teachers in their acceptance of on-line courses as a supplement to face-to-face courses. They have already crossed that bridge. The teachers are still suspicious of on-line courses. They are wary of embracing what they perceive as a replacement of them and their jobs.

Why is the model successful?

An analysis of the reasons for the program's success provides insight into how the development of the program, whether intentionally or not, met the needs of the rural learners in a way that enabled them to be successful. As I explain below, the program came at an opportune time: VS was ready for change. The program draws on the strengths of the rural school and the teachers. It is also a blend of the positive aspects of both face-to-face and ODE instruction. Finally, the model recognizes and effectively accommodates the unique characteristics and needs of both adolescent and rural learners.

VS was ripe for change

At the time the localized on-line model was introduced, there was palpable discontent at VS. Students had timetables that were $\frac{1}{2}$ to $\frac{3}{4}$ full. Many students had attempted and failed in ODE courses (Figure 6). Students and parents wanted more options than was available to them at the school. The administration was fearful of the declining enrolment of students and the loss of funding that was accompanying each student that took an ODE course. Students who were not engaged in face-to-face classes were loitering in the hallways and the foyer distracting their peers and projecting a lackadaisical image to parents and visitors. As described earlier, these and other factors were mutually reinforcing, presenting a kind of negative feedback loop in the school and community "system."

The questionnaire results indicate that the most common reason for enrolling in a L-OL course was that the students could not fit the courses they wanted into the timetable or that they had too many spares (Figure 9). The students were not necessarily attracted to L-OL because of what it could offer, but as a result of what they were not getting in the face-to-face environment. Students wanted more options, and the introduction of the localized on-line learning model came at an opportune time.

Teachers are course generalists but student specialists

Often rural schools are seen as having deficit. The focus is often on what is lacking or what rural schools do not do well. “Rural as context in the more common usage is *practically always* regarded as an impediment: an impediment to school effectiveness, school excellence, systemic reform and economic development” (Howley & Howley, 1999, p. 5). However, rural schools do have benefits that their urban counterparts are clearly lacking:

Rural schools tend to be smaller than urban schools and this carries a number of benefits for rural students. Class sizes tend to be smaller, students enjoy more individual attention from their teachers, and teachers often know most, if not all, of the students. There is also some evidence that small rural schools can be more effective in helping their students learn better, behave better, and participate more in civic life. (Canadian Council on Learning, p. 3)

The localized on-line model successfully capitalizes on what rural schools do well. It is a small- scale, intimate program that offers individualized attention to students. In a rural school the teachers are often student specialists but course generalists. They work with the same group of students over multiple years, but are often teaching them different subjects. This is in contrast to the urban model where teachers are course specialists but student generalists. The localized on-line model draws on the strengths of the rural education model.

Combination of Face-to-Face and ODE

The model incorporates positive aspects of both face-to-face and ODE courses.

Since the format of the L-OL courses uses a combination of the two other models, it is familiar to the students.

ODE

Despite lack of success in ODE courses many students are still positive about some aspects of the courses. From the questionnaire results it is clear that students have a positive regard for ODE (Figure 8). The most popular reason for enrolling in an ODE course is that some students prefer ODE to face-to-face. They enjoy the flexibility of on-line courses and the ability to work at their own pace and on their own time. Parents are also impressed by the design of these ODE courses and like having immediate and independent access to the courses taken by their children.

Perhaps surprisingly, some students also appreciate the absence of their peers in ODE courses. In a community such as Valemount when you go to school with the

same limited group of peers for many years, you are often labeled early as a certain kind of student and that label stays with you throughout your academic career. The opportunity to take an online course without the constant scrutiny of peers provided a student like Taylor with her first real sense of academic accomplishment. She did not think of herself as smart because that was not her label. She was very successful in her ODE course and for the first time began to see herself as a different kind of student.

Parents, students and teachers at VS all comment on what they perceive as the lack of academic rigour at the school. Teachers mention watering down curriculum in courses so that more students could be successful and parents describe a school environment with few consequences for late or missing assignments. Some students even hypothesize that they can get away with a lot more at VS than at other schools. “VS is easier than the big city schools, there is more leeway for students here. In other schools you can’t show up late all the time and skip classes and not get into trouble” (Beyonce). Given the impressions of the students, parents and teachers of the face-to-face instruction at VS, it is worthwhile to question how prepared the VS students are for taking courses outside of their home institution. It frequently seems to be a shock for these students to enroll in ODE courses with stricter work habit requirements and higher academic standards. In some ways the transition from a relaxed and intimate secondary school atmosphere to an impersonal and demanding on-line environment, while intimidating and challenging to students, may rehearse some

of the conditions of postsecondary educational environments. The experience at VS while personally rewarding may make it more difficult for students to be successful in an ODE and other environments.

Face to Face

Students and teachers both remark on the benefits of a personal student-teacher relationship. Students are more comfortable asking for clarification or help when they know the teacher and when they are in the same physical space as the teacher. Being able to get the information precisely when it is needed in a classroom is clearly highly valued by the students. The classroom provides an environment for learning that both students and teachers clearly value and privilege. Students in this study frequently reported feeling comfortable and less anxious learning at their home school because there are fewer unknowns. The teachers, the environment and the other students are familiar to the learners.

The flexibility presented by working at one's own pace, the absence of peer scrutiny and the technological medium are cited as positive aspects of ODE by some stakeholders of VS. These positive elements are retained within the localized on-line learning model. The familiarity with instructors, teacher immediacy and availability of help at the moment it is needed are also retained within the localized on-line model.

Adolescent Learners

Since the L-OL program operates through VS rather than outside of it, VS staff and counselors can verify what courses students are taking and during which block. The teachers do not have to rely on the students to provide them with that information independently as is the case with ODE. As the principal describes it, the ability to physically track down students and remind them of their academic responsibilities makes them more accountable and responsive. There is a big difference between an email reminder and a physical reminder to adolescents. As made clear in the literature review, adolescents are not adults. In general, they are not able to self-regulate their behaviour in the same way that adults are able to do so. They do not possess the same abilities to manage their own learning in the ways that adults can. Adolescents need reminders and encouragement from their teachers to keep on track and to stick to deadlines. They are typically not as self-disciplined as many adult learners nor do they possess the same time-management skills as adults. High school students are learning to develop these skills through their adolescence. Indeed, some of the skills are directly taught to BC students through such courses as Planning 10, while other skills are incorporated into the curriculum and practice of the course. These skills are in development in adolescents, and they are not yet fully realized. For most students the physical reminders and personal connection are much stronger encouragement than email notifications. They carry more weight and are more effective in keeping students accountable. As students put value on the personal relationship with the teacher, the desire to please the teacher is

reinforced through physical proximity. The localized on-line model incorporates the scaffolding needed by adolescent learners to be successful in courses.

Rural Learners

The characteristics of rural learners as outlined in the literature review are compatible with the localized on-line learning model. Rural learners demonstrate strong preference for cooperation and view learning as a social experience (Fitzgerald & Bloodsworth, 1996). The L-OL program enables students to work together for example, a small group of students worked together in the Photography 11 and Photography 12 class. In discussions of ODE experiences with parents and students, they repeatedly stressed that it makes a difference when the students took a course together. As Ms. MacDonald explains “There is a better completion rate when ODE is done with a group of kids.” The most relevant example of this is the group of students who took the Physics 11 course together. These students were able to incorporate cooperation and the social learning preference into the ODE experience. The L-OL program also incorporates these aspects into the course delivery.

Research also suggests that rural learners benefit from personally knowing teachers and from developing a trusting relationship with them (Hardré et al, 2009 & Nielsen & Nashon, 2007). All of the students enrolled in the L-OL program knew Mr. Lawless. In my interviews with students he was repeatedly referred to as a supportive and encouraging teacher. It is difficult for students to imagine how not knowing a teacher might impact their academic achievements.

Most have limited experience of working in educational situations in which the teacher is not known personally. Rural students are habituated to being in educational environments with high levels of intimacy and teacher immediacy (de la Varre et al., 2009). Most of the students at VS have only known Valemount and its school. Part of the success of the L-OL program is undoubtedly due to the strength of the student-teacher relationship which is so crucial for rural learners. The hybrid localized on-line learning model successfully meets the needs of rural learners to personally engage with their teachers.

While many ODE courses are developed and delivered from urban centres, the localized on-line learning model was developed in a rural setting. This makes a difference. Rural areas are not miniature versions of the city (Nachtigal, 1982). A program developed in a rural school may not have intentionally set out to make a rural version of ODE just as an urban based program did not intentionally set out to make urban ODE. The place of development matters since it influences the structure and characteristics of the program. The localized on-line learning model caters to rural students: students with a preference for cooperation, for personally knowing the teacher and for viewing learning as a social experience.

What does it mean?

It is my conclusion that success of this model derives from the way in which it incorporates the needs of both rural learners and rural schools in a program that brings rural teachers and students together. Instead of the mutually reinforcing negative consequences of declining enrollment, funding and student choice, the

local online program turns these negatives into positives. Moreover, the stakes could not be higher: the loss of either rural teachers or rural students could mean the demise of the school. The localized on-line learning model not only provides learning opportunities for students, it also provides teaching opportunities for rural teachers. What this means is that there is another option for rural schools. By creating a hybrid model that draws of the strengths of both the face-to-face model and the ODE model, Valemount Secondary has envisioned another possibility for rural learners and perhaps also for their communities. It is the option of taking on-line courses with local teacher support and retention of local school funding. Many rural schools like Valemount have been faced with an either or dilemma: either face-to-face courses or ODE courses. Valemount has created a new possibility, a hybrid of the two models. Referencing Bassey's (1999) concept of "fuzzy generalizations", I can conclude this section by venturing that it is likely that rural schools similar to Valemount would have positive results comparable to Valemount's results using a localized on-line learning model, appropriately adapted to local needs.

Limitations of Localized On-Line Learning

The L-OL program has increased opportunities for students, but it has not addressed all of the issues caused by dwindling enrolment in rural schools. The program is limited in the types of course it can offer. The capability of L-OL to offer senior science and upper level academic courses is limited by the teacher

expertise available at the school. Valemount Secondary is still not able to offer Physics 12 through L-OL because there is not a teacher available at the school who could support the course. Specialist knowledge is necessary to increase the repertoire of courses at VS beyond the elective courses.

There is also the belief that the L-OL courses are not as rigorous as classroom courses and that the content of the courses has been watered down. To maintain the reputation of the program it will be important for administration to address some of these concerns. There are also technological limitations to the types and number of courses that the school can offer through its local-online program. The teacher administering the courses is not an IT specialist nor does he have a limitless supply of computers. The growth of the L-OL program is limited by the technological expertise, IT access and the capacity of the administrators.

Although the localized on-line learning model addresses some of the challenges experienced by rural students in accessing on-line courses, it does not address the necessity of having good reading and writing skills and the rural preference for having information presented orally rather than in writing (Potterfield & Pace, 1992). The L-OL program decreases the transactional distance between teacher and learner, but does not appear to address the needs of students who prefer to direct and sustained contact with the teacher.

Future of Localized On-Line Learning

The L-OL program at Valemount Secondary continues. In September 2011, Valemount Secondary opened its doors with an enrolment of just 84 students. More than one quarter of those students, or 24 students have enrolled in L-OL blocks. The administrator of the program has recruited 4 teachers to volunteer their time as mentors and help support students in such courses as Literature 12 and Chemistry 12. Some students are still taking ODE courses through different districts, but that number has decreased as the options available through the L-OL program have increased. Sources outside of this thesis show the response from students to have been positive. An article from the local paper profiled various students taking L-OL courses. "Gage Ringer, who is in Gr. 11, found out he could take Digital Photography through Moodle instead of taking Art. He can do the work on his own time, take breaks when he wants, and is free of classroom distractions, he says" (Time to Moodle!, 2011).

The growth of the L-OL program is currently limited to the students enrolled at VS. Since VS is not a dedicated Distributed Learning school, they are not able to enroll students from outside the school. There is an initiative to change this. The School District has given VS the option of offering a locally developed course to students at other schools. If VS is able to develop the courses the dedicated DL school in the district could host the courses with the funding returned to VS. As already mentioned, the Environmental Education course at VS has a

demonstrated potential to reach a much larger audience through the initiative offered by the district.

As the teachers at VS develop their skills and knowledge in the field of ODE and localized on-line learning, the principal (and this researcher) hopes that this will encourage the school board to consider allocating some of the teaching positions for district wide ODE courses to rural high schools. This would enable VS to maintain the diversity of its staff. Teachers could split up their teaching assignment among face-to-face courses at VS, L-OL courses at VS and ODE courses throughout the district. The diversity of the staff would continue to support the availability of L-OL courses at the school.

The localized on-line model has offered a lifeline to Valemount Secondary. Continued support from the school district is necessary to expand the potential of the program which will in turn guarantee the survival of face-to-face instruction at VS.

Limitations of the Study

Case studies have a clearly understood role in education research. They allow for “theory generation, policy development, improvement of education practice, illumination of social issues and action stimulus” (McMillan and Schumacher, 2006, p. 315). Case studies are often not assessed in the same way as other forms of research. However, case studies have made significant contributions to theoretical knowledge.

This leads to a paradox: although much of what we know about the empirical world has been generated by case studies, and case studies continue to constitute a large proportion of the work generated by the social science disciplines, the case study method is generally unappreciated-arguably because it is poorly understood. (Gerring, 2007, p. 8)

While limited in scope to a single case, this study utilized a wide range of data and also relied on prior research to paint a picture of one situation which has applications beyond its own context.

The very nature of a case study is that the research investigates a case, an incident. The case of VS and the incident represented by the development the local online program is as unique as the conditions that enabled it to occur. The ability to offer face-to-face and online courses may not be an option for other rural secondary schools. The dual nature of VS with the presence of the satellite campus of the alternative school, provided the opportunity to enroll in the BCLN (British Columbia Learning Network) and become a provider of on-line courses. Other rural schools would have to overcome legislation that prevents a school from offering both face-to-face and ODE courses at the same time. Given the successful example and the conditions at Valemount Secondary, other schools may advocate for changes that would enable rural schools to offer these kinds of courses.

Another way of saying this is that it is difficult to reproduce the situation at VS at other rural high schools. However, it does not mean that the study at VS does not have value.

The way the case and the researcher interact is presumed unique and not necessarily reproducible for other cases and researchers. The quality and utility of the research is not based on its reproducibility but on whether or not the meanings generated, by the researcher or the reader, are valued. (Stake, 1995, p. 135)

The value of understanding and studying one school's experience has contributed to a limited body of research on rural learning styles and how to structure programs for rural learners. "Sometimes, in-depth knowledge of an individual example is more helpful than fleeting knowledge about a larger number of examples. We gain better understanding of the whole by focusing on a key part" (Gerring, 2007, p. 1).

Another limitation of this study is that it focuses on the changes at the level of a *school* while in many jurisdictions the power to bring about changes lies at the district level. A recent case study of rural and remote schools in Australia by Clarke & Wildy (2011) highlights the need of looking at the roles of districts in influencing change in rural schools. "In the USA and Canada, school districts have been rediscovered for their role in school reform" (p. 25). This study is an example of initiative and leadership at the school level whereas the focus for

future opportunities for localized on-line learning necessitates leadership and initiative at the district level. At the same time, the kinds of administrative flexibility and resource sharing, as well as the singular mix of local and technological solutions shown in the Valemount case could serve as highly instructive for divisions that are experiencing related challenges.

Recommendations for Future Study

While there is research evidence for the identification of rural learner characteristics, there is little research in the area of rural learner styles. Many students who attend school in the city of Prince George or Vancouver will probably never take ODE courses during their high school education while for their counterparts in the outlying rural schools, ODE courses are their new reality. The suitability of rural learners for ODE courses is not discussed in the research although they are the main consumers of ODE courses in British Columbia, and although related research underscores the unsuitability of these courses for these learners. Many benefits would be realized if future research could look at the experiences of rural students enrolled in ODE courses.

The geographical barriers to transporting students in BC are not limited to the northern parts of the province. In Kamloops BC, School District 73 has developed a novel approach for offering ODE courses. In the past rural high schools in outlying areas such as Barriere, Chase, Clearwater and Logan Lake were videoconferenced in with urban schools in Kamloops for senior academic

courses such as French, Chemistry and Physics. The rural students experienced significant barriers in accessing these courses through this rural/urban partnership. Now the rural schools are networked together. A rural teacher in Clearwater might teach Principles of Math 12 to a small number of face-to-face students and have students from the other rural schools videoconferenced in to the class. As the principal of the virtual school in Kamloops explains,

The model for rural problem solving is to look for the solution from within. Rural communities are not likely to look to the outside for a solution. Networking rural kids together keeps rural teachers in rural schools. The goal is to engage kids in classes where they want to learn.

The district undertook this initiative because it was thought that rural students, despite vast geographical separation, had more in common with each other than with their nearer urban counterpart. This program has been quite successful in Kamloops and speaks to the commonalities of rural students and rural learner characteristics. The program was undertaken, in part, on the strength of anecdotal knowledge about how rural students learn. It would be advantageous to undertake research examining rural learner preferences, and to encourage initiatives that support rural students' learning needs and community expectations.

In the US it is estimated that although 30% of schools are in rural communities, less than 6% of research conducted in schools has included rural schools (Hardré,

2008). There is no reason to doubt that the situation in Canada is comparable. As a result, it is clear that rural students and their stories are underrepresented in research. It is the rural schools throughout Canada that are under tremendous pressure to continue to operate and be successful under increasingly difficult conditions. Dwindling enrolments, changes in funding structure and difficulty in recruiting specialist teachers have placed many rural schools in a Catch 22 situation. Abandon face-to-face instruction and offer only ODE courses or offer very limited face-to-face courses and jeopardize the future of the school. The pressure on these rural schools also has the potential to create innovative strategies and learning models. The rural schools are incredibly motivated to find sustainable ways to exist: their future depends on it. What has happened at VS has the capacity to ignite creativity at other rural schools to pursue a range of innovative possibilities. The networking of rural schools through virtual communities has the potential to strengthen the viability of rural education. Future research could look at the innovation occurring in rural schools and how they are expanding the repertoire of what they can do locally.

For example, future research could look at the graduation rate in rural secondary schools. As studies have shown the drop-out rate for students enrolled in ODE courses at the high school level is almost as high as 50% (Roblyer, 2006). What is happening to the graduation credit requirements for these students when they drop courses? One teacher at VS explained how this was impacting students at

VS. “The lack of face-to-face choices and the drop-out rate in ODE has led to a new problem. There is a pattern of students only taking 4 or 5 courses a year and taking 3-4 years to graduate. There is no rush. They are not inspired to finish or leave the community” (Mr. Smith). The Ministry tracks graduation rates within schools and districts but these results are not correlated with the types of courses the students are taking. Is there a difference in graduation rates between students taking ODE courses and face-to-face courses? It is worthwhile to study how these and other changes in courses delivery are impacting graduation rates in rural areas.

Another learner characteristic that is not addressed in my research is the characteristics of Aboriginal learners. At VS, 30% of the students are aboriginal compared to a province wide average of 10% and a district average of 26% (BC Ministry of Education: Provincial Reports). Valemount Secondary has a higher proportion of aboriginal students than the other areas of the province and the district. As rural areas such as Valemount have a higher participation rate in ODE courses and a higher percentage of aboriginal students than many urban areas, it would be beneficial for future research to look at the compatibility and success of rural aboriginal learners in ODE courses.

Conclusion

I was drawn to study the dynamics of a rural school because of my personal experience. This study of rural education has opened my eyes to the

commonality of the rural experience. A recent article from the Globe and Mail describes a similar situation in Nova Scotia. “The dwindling school population is symptomatic of much larger forces that are reshaping the country, and sharpening contrasts within it – particularly between East and West. Rural Canada is being hollowed out, birth rates are declining and, in the Atlantic Provinces, immigration is not making up the difference” (Taber, 2012). Despite the vast geographical separation, both BC and Nova Scotia share the same experience. The most recent census paints a picture of Canada that is now 80% urban and 20% rural (Statistics Canada, 2006). In 1921 the country was 50% rural and 50% urban. In BC the rural-urban divide is 15%-85%. This is slightly higher than the national average and has stayed relatively constant in the last three census years (1996, 2001, and 2006). If the rural population is stabilizing in BC it would be beneficial to have a rural education plan for the province. Such a plan, would of course need to avoid relegating rural students to a second rate education but provide for them one which capitalizes on the strength of rural education and rural students and their communities.

I am inspired by the stakeholders at Valemount who are not only dedicated to the school and education, but to the livelihood of their community. The irony of rural education is that when it is done well the students are educated to leave the community. The resources dedicated to educating rural youth need to be developed in such a way that they stay to educate future generations of rural students. The localized on-line model points to this promise, and shows the

characteristics of rural students and communities not to be deficits, but proven strengths, and ones that are too often overlooked in both theory and practice.

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Appendices

Appendix A-Consent Forms

A1 – Thompson Rivers University Ethics Review Committee Certificate

A2 – School District #57 (Prince George) Research Approval

A3 – Valemount Secondary Research Approval

A4 – Informed Consent by Participants Form (Adult)

A5 – Informed Consent by Participants Form (Minor)

Appendix B- Survey

B1 – Student Questionnaire

B2 – Interview Questions: Parents and Students

B3 –Interview Questions: Teachers

Appendix C-Timetable

C1 – Valemount Secondary 2010-2011 Timetable

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RE: REQUEST FOR ETHICAL APPROVAL – 10-11/26

PI: Norm Freisen, Erin Khelouiati

TITLE: Successes and challenges of implementing a localized on-line program at a rural high school

- 1) There is a slight problem of consistency in attachments #1,2, 3 and 4. Attachments #1 and 2 use the phrase "successes and failures" while attachments #3 and 4 use the phrase "feelings and perceptions". The project itself is entitled " Successes and Challenges of Localized On-line Learning at a Rural High School"; thus, more consistent language usage is required for greater clarity.
- 2) Additionally, attachment #3 for minors departs from the standardized formats of attachments #1 and 2, with fuller and more descriptive information; please ensure that all information found on the provided templates remains intact.

Please address the above issues and inform me directly prior to gathering data.

Best of luck with the research!



Michael Woloszyn
Chair, REC:HS.



SCHOOL DISTRICT NO. 57 (PRINCE GEORGE)

2100 Ferry Avenue, Prince George, B.C. V2L 4R5

Phone: (250) 561-6800 • Fax (250) 561-6801
www.sd57.bc.ca

06 December 2010

Ms. Erin Khelouiati

[REDACTED]
[REDACTED]bia
[REDACTED]

Dear Ms. Khelouiati:

This letter is to confirm the discussion at our meeting regarding your request to access to schools in the Prince George School District for the purpose of educational research. As we discussed, the school district recognizes the integral part that research plays in education. We support the research sponsored by tertiary institutes as a priority. Your project, "Localized On-Line Learning at a Rural High School" is intriguing and should provide useful information for you and the district.

This letter's purpose is to indicate that you have district approval to proceed with your project. "District approval" allows the researcher to approach principals and subsequently teachers to request their permission to conduct research in their school/classroom. Your next step will be to contact Mr. Dan Kenkel, Principal of Valemount Secondary School, to set up a meeting to discuss your project and obtain permission to undertake the project in the school. A copy of this letter has been forwarded to Mr. Kenkel.

If you have any questions, please do not hesitate to call me. Good luck with your project. I look forward to receiving a copy of the final report.

Sincerely,

Lisa Carson
District Principal, Curriculum and Instruction

cc: Mr. Dan Kenkel, Valemount Secondary

A3 – Valemount Secondary Research Approval



Valemount Secondary

December 15, 2010

Erin Khelouati

[Redacted]
[Redacted]
V [Redacted]

Dear Erin,

Thanks for the opportunity to help us look at the development of our online courses as we embark on this journey of e-learning. I welcome your involvement through your research, and think this project will be of mutual benefit.

For the purposes of satisfying the ethics requirements of this project, I grant my full permission for you to work with our staff and have access to our data for the purposes of your project.

Once again, I look forward to having you in our school, and working together.

Sincerely,

Dan Kenkel
Principal

DK/dk

School District #57



Valemount Secondary
201 Ash Street
Box 370
Valemount, BC
V9E 2Z0
www.vals.sd57.bc.ca

250-566-4431
250-566-4551 (F)

Dan Kenkel
Principal

Thompson Rivers University School Staff & Parental Consent Form

I agree to participate in the project entitled “Success and Challenges of Localized On-line Learning at a Rural High School” conducted by Ms. Erin Khelouiati (1-250-372-2612) for her Master’s of Education Degree at Thompson Rivers University.

The study explores the implementation of a localized on-line education program at a rural high school and the successes and failures as experienced by the different stakeholders in the program. Data will be gathered through audiotape interviews and will take approximately 30 minutes to complete.

I understand that all information, including the respondents’ names, will be treated in the strictest of confidence. All audiotapes will be stored in a locked cabinet in the instructor’s office and will be destroyed immediately after the completion of the study.

I further understand that an initial agreement does not obligate me in any way and I can withdraw from the study at any time without any negative repercussions.

If you have any questions or concerns about this study, please contact Dr. Jack Miller, Dean of Education at Thompson Rivers’ University at 1-250-371-5906

PARTICIPANT’S NAME: _____ SIGNATURE: _____

DATE: _____

INSTRUCTOR’S NAME: _____ SIGNATURE: _____

DATE: _____

THOMPSON RIVERS UNIVERSITY

Consent Form FOR MINORS

I give permission to participate in the project entitled “Success and Challenges of Localized On-line Learning at a Rural High School” conducted by Ms. Erin Khelouiati (1-250-372-2612) for her Master’s of Education Degree at Thompson Rivers University.

This project investigates the feelings and perceptions of rural high school students enrolled in localized on-line courses at Valemount Secondary School in Valemount, BC. The study was approved by Ms. Lisa Carson, District Principal, Curriculum and Instruction of School District 57 and Mr. Dan Kenkel, principal of Valemount Secondary.

I understand that I will be interviewed in my regularly scheduled school day during breaks, at lunch time or during my on-line assigned class time in January, 2011 and again in the spring of 2011. Furthermore, I realize that my participation is voluntary and that I may withdraw from the study at any time without any negative repercussions.

I understand that there will be no penalty for me as a student if I choose to withdraw from the study. Also, I am free to refuse to respond to the interview or to answer specific questions. I understand that my identity will remain anonymous and the information I provide will remain confidential. Specifically, questionnaires and interview tapes will be identified with a code number or pseudonym and all materials will be locked in a filing cabinet in the instructor’s office. Any questions or concerns I may have can be addressed by Dr. Jack Miller, Dean of Education at Thompson Rivers’ University at 1-250-371-5906.

DATE: _____

PARENT’S/GUARDIAN’S NAME: _____

SIGNATURE: _____

STUDENT’S NAME: _____

SIGNATURE: _____

INSTRUCTOR’S NAME: _____

SIGNATURE: _____

Research Project Questionnaire

Introduction

I give permission to participate in the project entitled "Success and Challenges of Localized On-line Learning at a Rural High School" conducted by Ms. Erin Khelouati (1-250-372-2612) for her Master's of Education Degree at Thompson Rivers University.

This project investigates the feelings and perceptions of rural high school students enrolled in localized on-line courses at VS School in Valemount, BC. The study was approved by Ms. Lisa Carson, District Principal, Curriculum and Instruction of School District 57 and Mr. Dan Kenkel, principal of Valemount Secondary.

I understand that I will complete this questionnaire in my regularly scheduled school day during breaks, at lunch time or during my on-line assigned class time. I realize that my participation is voluntary and that I may withdraw from the study at any time without any negative repercussions. Data will be gathered through written questionnaires and will take approximately 15 minutes to complete

I understand that there will be no penalty for me as a student if I choose to withdraw from the study. Also, I am free to refuse to answer specific questions. I understand that my identity will remain anonymous and the information I provide will remain confidential. Specifically, questionnaires will be identified with a code number or pseudonym and all materials will be locked in a filing cabinet in the instructor's office. Any questions or concerns I may have can be addressed by Dr. Jack Miller, Dean of Education at Thompson Rivers' University at 1-250-371-5906.

Student Questionnaire

Localized On-Line Learning Program

ID # _____

1. What grade are you in? _____
2. How many years have you been a student at VS? _____
3. If you attended a different high school prior to Valemount, please write the name of the school.

4. Indicate the number of courses you are taking or have taken through the various distance education programs. Please specify the names of the courses and the grade level.
 - a. Distance learning courses offered by a school outside of this district

Course Name	District or School

- b. Distance learning courses offered by a school within this district

Course Name	District or School

- c. Moodle course offered by VS

Course Name

5. Indicate the courses you are currently taking through face-to-face instruction

Course Name

6. What were the main reasons that you enrolled in distance education/online courses **in the past**
1. Prefer online or distance learning
 2. Course I wanted was not offered as face-to-face instruction
 3. Could not fit course that I wanted into my timetable
 4. Was unable to wait until the course was offered as a face to face course
 5. Needed to take the course again because I was unsuccessful the first time
 6. Unable to attend classes at the regular time
 7. Think that online or distance courses are better than face-to-face instruction

7. Why are you currently enrolled in a Moodle courses at Valemount?

Check all that apply

1. Prefer online or distance learning
 2. Course I wanted was not offered as face-to-face instruction
 3. Could not fit course that I wanted into my timetable
 4. Was unable to wait until the course was offered as a face to face course
 5. Needed to take the course again because I was unsuccessful the first time
 6. Unable to attend classes at the regular time
 7. Think that online or distance courses are better than face-to-face instruction
8. What is the best part of the Moodle program at Valemount
1. Flexibility
 2. Availability of courses
 3. Ability to work at own pace
 4. Able to learn in my home school
 5. Familiarity with instructor
 6. Types of assignment
 7. Using computers to learn
9. What has been the most challenging part of the Moodle courses at Valemount?

Interview Questions (Parents and Students)

- 1) What is the grade level of the student?
- 2) What courses is the student taking through face-to-face instruction?
What courses is the student taking through online programs?
- 3) What is the most challenging aspect of taking online-distance education courses in general?
- 4) What is the most challenging aspect of taking Moodle Courses at Valemount?
- 5) What is the primary reason why the students is taking online/distance education courses?
- 6) As a student/parent, how do you feel about taking high school courses by a method other than face-to-face instruction?
- 7) What has been the most positive aspect of taking Moodle courses at Valemount?
- 8) Do you see any difference between the way the courses are offered though the Moodle program at Valemount and the other distance education programs and courses?
- 9) Would you enroll (or have your son/daughter) enroll in another Moodle course at Valemount?

Interview Questions (Staff and Principal)

1. How many years have you worked at Valemount Secondary?
2. What is your involvement with the Moodle program at Valemount Secondary?
3. What are the benefits of offering on-line courses locally at Valemount Secondary?
4. What are the challenges of offering on-line courses locally at Valemount Secondary?
5. How has the introduction of the Moodle program at Valemount Secondary impacted your teaching and/or your classes?
6. Any additional information you would like to add.

Teacher Timetable 2010 - 2011

Block	A	B	C	D	E	F	G	H
[REDACTED]	MA 10 F ComputerLab	MX 10 AutoShop	MX 11 MX 12 AutoShop	MA 11E MA 12 P ComputerLab	PREP	WW 11 WW 12 WoodShop	MA 11 P ComputerLab	WW 10 WoodShop
[REDACTED]	MA 10E HomeEc	FDS 9/10 HomeEc	PE 10 Gym	HEC 8 HomeEc	SC 9 ScienceRoom	SC 8 Classroom 2	PE 9 Gym	PREP
[REDACTED]	FR 12 Classroom 2	FR 9/10 ComputerLab	FR 8 Classroom 2	PREP	FR 11 Classroom 1	PLAN 10 ComputerLab	POSR	
B. [REDACTED]	SS 8 Classroom 1	GEO 12 Classroom 1	PREP	SS 10 Classroom 1	Social Jus Comp Lab	GRAD TRANS	COUNS	SS 11 Classroom 1
P. [REDACTED]	ART 9/11/12 Artroom	MA 8 Artroom	MA 9 Artroom	ART 9 to 12 Artroom	PREP	SS 9 Classroom 1	APPSK 8 ART8 INFOTEC 8 Artroom/ Computer Lab	EN 8 Artroom
D. [REDACTED]	COUNS	SUPPORT	ADMIN	ADMIN	COUNS	ADMIN	SUPPORT	ADMIN
D. [REDACTED] ss	MOODLE Sem 1			AMA 11 Sem 1			SUPPORT Sem 1	SUPPORT ENG 8 Artroom
B. [REDACTED]	PREP	EN 11 Classroom 2	LIBRARY	EN 9 Classroom 2	EN 10 Classroom 2		EN 12 Classroom 2	DRAMA 9-12 Theatre
S. [REDACTED]		SUPPORT Sem. 2	SUPPORT Sem. 2		SUPPORT Sem. 2	PSYCH 11 Sem. 2		
L. [REDACTED]	PE 11/12 Gym	PREP	BIO 11 ScienceRoom	CHEM 11 ScienceRoom	PE 8 Gym	CH 12 ScienceRoom	SC 10 ScienceRoom	BIO 12 ScienceRoom

SSW
S. [REDACTED] SS 8 MA 8 MA 9 EN 9 PE 8 SC 8 APPSK 8 EN 8

S. [REDACTED] AEW AEW AEW AEW AEW AEW AEW AEW

D. [REDACTED] FR 8 HE 8 SC 9 SS 9