Distance Education in Remote Aboriginal Communities:

Barriers, Learning Styles and Best Practices

Bill McMullen
BA, BA(Hon), AGDDE(T), MDE

Andreas Rohrbach
BA (Hon), MA, GDEd

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Dedicated to:

Mike Steinhauer
Blue Quills First Nations College

Margaret Fiddler
Sandy Lake First Nation

…and to all people who have devoted their lives to increasing education opportunities in remote Aboriginal communities.

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EXECUTIVE SUMMARY

Distance education has the ability to provide education opportunities to students in remote Aboriginal communities. To date, distance education has failed to meet this ability. Why?

Teaching in remote Aboriginal communities in Alberta, Quebec, Saskatchewan and British Columbia for the past decade, we have observed the potential for distance education but have been frustrated by its failure to meet the needs of those distance learning was designed to assist. Boxes of correspondence materials remain unopened in closets and storage rooms in schools and band offices across Canada. Students continuously apply for extensions to distance education courses without ever actually completing the courses. Even with the introduction of a new technology, such as the internet, distance education is rarely effective at meeting the education needs of students in remote Aboriginal communities.

We have been continually told that our students have failed distance education courses. We contend that in many cases distance education courses have consistently failed the student. Too many distance education courses that did not consider the needs of the student or the environment in which the course was delivered have been sold to communities. Barriers to successful distance education courses have not been determined or

overcome prior to course delivery. As well, learning styles of students in remote Aboriginal communities have been assumed based on the culture or the community and not on the students themselves. In addition, the best practices for successful distance education delivery courses across Canada have not been shared with other communities wanting to start similar programmes.

In spite of these challenges, many successful examples of distance education programmes exist that have managed to meet the needs of students. Creative groups of people have overcome barriers to success, properly determined the learning styles of students and implemented practices that ensured success. In this book, we will examine the barriers, learning styles and best practices of distance education courses in a variety of remote Aboriginal communities across Canada. The information provided will benefit those determined to deliver successful distance education courses in other communities.

We contacted many distance education specialists as well as Metis, First Nation and Inuit organisations in each province and territory in Canada to determine the challenges communities faced in implementing distance education courses in remote communities and what successes have been achieved. After extensive literature review as well as telephone and email contacts, we personally visited seven unique sites to research their challenges and successes. From this research, we have compiled an overview of the barriers, learning styles and best practices of distance education programmes in remote Aboriginal communities in Canada.

A large number of barriers consistently confront the development and delivery of distance education courses.

Some of the barriers to successful distance education courses in remote Aboriginal communities are unique to an individual community while others are common across Canada. By increasing awareness of barriers, we intend that education directors, communities and institutions are able to consider effective means of overcoming these and similar barriers.

Common barriers that we explore in this book include the costs of delivery, the effects of politics and the perception that distance education is a second-rate option compared to face-to-face delivery. Barriers encountered also included the continued lack of access to reliable technology in remote communities and the failure to research and adapt the course material and delivery methods to the unique needs of remote Aboriginal students. In addition, the balance between structure and independence as well as the perceived costs associated with distance education are also addressed in this book.

During our research, a great deal of discussion about learning styles occurred. The debate was whether Aboriginal students had a single learning style determined by their culture or whether Aboriginal students in remote communities portrayed a variety of learning styles. Our research determined the latter.

After reviewing the research on learning styles and interviewing people involved in distance education, we argue that students in remote Aboriginal communities are no different from students in other communities across Canada; and as with all students, individual learning styles need to be recognised. We cannot and should not state that Aboriginal students have only one primary learning style based on their culture. Students in remote Aboriginal communities are not primarily

visual or auditory learners. As with students anywhere, students in remote Aboriginal communities have individual learning styles that reflect their environments and their personalities. Distance education curriculum and delivery methods should not reflect only one learning style and must be flexible enough to adapt to a variety of learning styles.

A number of organisations and communities have been innovative in delivering high school and post-secondary education programmes by distance delivery and have achieved dramatic success. However, few education institutions and education directors know of these successful models and few have been able to learn from these experiences.

The best practices presented in this book are the measures by which a number of communities and education institutions have successfully developed and delivered distance education courses. Best practices are often related to local needs and the environment but many practices can be adapted to any distance education programme and should be considered by those delivering courses by distance. Best practices discussed in this book include the involvement of on-site tutors, flexible delivery models and the need to develop personal relationships between the parties involved. Best practices also included the need to adapt delivery of courses to the available and appropriate technology.

Our hope is that this book will provide information, ideas, strategies and contacts for those wanting to establish new distance education programmes or improve existing courses in remote Aboriginal communities. This book will also introduce education institutions, education directors, students and others to the potential of distance education and the long-term

benefits this method of delivery can offer remote Aboriginal communities.

We anticipate that by sharing this information, remote Aboriginal communities will be better prepared to make decisions in partnering and purchasing distance education programmes. This information will also provide academic institutions the information needed to design distance education course design and programme delivery that meet the needs of students and remote communities.

The information and views provided in this book are not exhaustive as each distance education delivery environment has its own history, challenges and successes. Although this research provides an overview of common challenges and reflects best practices among the sites visited, we encourage you to be creative and examine your own barriers and develop your own best practices to meet the needs of your community and students.

Chapter 1

INTRODUCTION

Remote Canadian communities are littered with stories of well-meaning educators bringing high school or post secondary courses to students in Aboriginal communities using modern technology - with little or no student success. The lack of success is often attributed to incompatible learning styles, lack of prerequisite knowledge or poorly motivated students. We believe that in such cases the course often failed the student, whether by poor design or by using the wrong choice of delivery methods. Remote Aboriginal communities across Canada have intelligent, resourceful people who, if provided the appropriate courses delivered in a culturally and technologically appropriate manner, will be successful.

Assisting in the education of any group of people brings challenges and responsibilities that must be recognised and accepted by the educator. Every student and community reflects distinct qualities that must be respected and incorporated into the course material and delivery methods. Because of the barriers imposed in remote Aboriginal communities, recognising and incorporating this individuality and cultural context into distance education is even more challenging than in the traditional classroom setting.

Aboriginal peoples include those of Inuit, First Nations and Metis ancestry. Students in remote Aboriginal communities are a group that can benefit from distance education programmes for a variety of personal, financial and cultural reasons. Many students in remote communities are unable or unwilling to leave their communities to attend education programmes in urban centres while numerous students, due to the prohibitive cost of flying instructors into a remote community, have limited access to face-to-face learning. As a result, distance education has the potential to provide a practical, affordable and effective alternative to face-to-face education for those living in remote communities.

The purpose in researching and writing this book is to provide information for both academic institutions and remote Aboriginal communities on the barriers to distance education, to discuss the learning styles of Aboriginal students and to recognise and share the best practices of existing distance education programmes across Canada. By sharing this knowledge, we hope to improve access to appropriate distance education programmes in remote Aboriginal communities.

Definitions

What is distance education? Before discussing the barriers and best practices of distance education, we needed to determine what "distance education" is.

The term "distance education" is not new, and its definition presents a difficult task. Defining the term is difficult as the concept is evolutionary and thus the definition changes as the technology and the subject itself changes.

Distance education has existed for centuries and involves obtaining knowledge in an environment where the instructor and the student are physically separated. Many educators have debated, with limited agreement, the definition of distance education. Some believe that distance education has revealed that it exists, but it cannot define itself (Shale, 1982) while others relate distance education to the implementation of technology (North, 1993). Still others believe distance education is a unique delivery method and in the future every academic and vocational programme leading to a credential will be available full-time, part-time and through distance learning (Wild, 1994).

Distance education has existed for centuries and the one common defining component that is consistently present is that the teacher and the student are geographically separated (Holmberg, 1977). This definition, of course, does not reflect that many recognised distance education programmes include some face-to-face contact between instructor and students. As we will see, if properly incorporated into the delivery, this personal contact is often necessary for successful distance education programmes as personal contact aids in building a relationship between the instructor and the students.

The other component of defining distance education that is consistently discussed is the use of technology and media in the learning process (Keegan, 1991). This reference to the use of the mail, radio, television, internet or other technology in the delivery of distance education courses is essential to understanding the transfer of information.

In this book, we do not endeavour to introduce a new definition of distance education. However, we believe it is important to present a definition that allowed us to

focus our research on specific programmes. Innovative education programmes exist such as the successful Akitsiraq Law School project in Iqaluit, Nunavut, which have face-to-face delivery administered by a distant university. We had to determine if programmes such as these were true distance education programmes, a form of distance education or simply an adaptation of traditional face-to-face delivery. This distinction is important as the barriers and best practices can be different for each model.

For the purpose of this book, we decided to examine distance education as an evolutionary process of utilising technology to aid the learning process outside traditional face-to-face teaching. We chose to adapt the ideas of experts in the field including Ian Mugridge (1991), Edward Spodick (1995) and Desmond Keegan (1991) to develop the following definition for our purposes:

> Distance education is a mode of instruction in which a physical and time separation between instructor and student normally exists and thus one in which other means of curriculum delivery and two-way communication, including the printed word, teleconference, computer mediated communication and others, are used to bridge barriers and meet the needs of students.

The terms “distance learning” and “distance education” are used interchangeably although we often found ourselves using the former to focus on not just the acquisition but also the application of knowledge. This application of knowledge is essential for Aboriginal

students to ensure the students truly understand the material – not just remember it until the exam.

Defining the term “remote” was just as challenging. People in large cities can feel isolated while today, people living in geographically isolated communities can feel less secluded with the improvements in transportation and technology; such as the internet and satellite television. As people in urban areas have more learning opportunities available to them, we chose to concentrate on geographically remote communities. Communities that are accessible only by air, logging roads, ice roads or are great distances from urban areas were the focus of our research.

Chapter 2

DISTANCE EDUCATION CASE STUDIES

The best way to learn about the barriers in distance education in remote Aboriginal communities and examine what best practices overcome barriers is to visit communities across Canada where innovative models exist. Although many organisations and communities offer inventive and successful programmes, we chose to visit, in person, seven sites based on their reputation and location.

Programme staff at each site we visited provided open access and were willing to share their challenges and successes. All sites visited were also willing to provide information and assistance to other communities and organisations wanting to introduce similar programmes.

Some of organisations listed are willing to provide their course software free of charge, and all will eagerly share their specific knowledge and experiences. Each site encouraged other communities or organisations to contact them with questions or for assistance in the development or delivery of distance education in other remote Aboriginal communities.

Wahsa Distance Education Centre

Northwestern Ontario

http://www.nnec.on.ca/Wahsa

"Wahsa" is an Oji-Cree term meaning "far away". The term identifies a unique aboriginal model of secondary education delivery to remote first nation learners across northwestern Ontario, Canada. The Wahsa classroom spans over 200,000 square kilometers of bush and semi tundra, as far north as Fort Severn on the Hudson Bay coast, and west to the Manitoba border. In the spring of 2003, the Ontario Ministry of Education awarded 28 secondary school diplomas to Wahsa students. In total, over 260 secondary school diplomas have been awarded to Wahsa graduates.

Wahsa Distance Education Centre, based in Sioux Lookout, Ontario, offers a convenient way for students in remote northwestern Ontario to complete high school studies from home. The centre offers accredited secondary education courses to 20 remote Ojibway, Cree, and Oji-Cree communities by means of radio and text-based independent learning.

The Northern Nishnawbe Education Council (NNEC), parent organisation of Wahsa, was founded on the belief that local First Nations should, through First Nations organizations and institutions, exercise self-government authority in education. NNEC was incorporated in 1979 as an area Education Authority to provide secondary education courses to First Nations students attending school away from home and has grown to include the delivery of courses by distance education. NNEC is also mandated by the communities to increase the number of First Nations' professionals to advance

self-government, self-determination and economic self-sufficiency and to assist Band Councils with local control of education.

The philosophy of NNEC recognises that their culture is unique and must be kept alive for future generations. Regardless of the delivery method chosen, education must include knowledge of their language, culture, history, values, heritage, and spiritual beliefs. Where possible, education programmes must be culturally relevant with curricula designed, developed, and delivered by First Nations people. In addition to Wahsa, the organisation operates residential schools and post-secondary programmes.

Wahsa Distance Education Centre was created in 1990 as a First Nations High School to provide mature adolescent and adult learners the opportunity to complete secondary studies while living, working and raising families at home. Wahsa provides non-credit English, math, computers and science transition courses to ease students back into education at the Grade 11 and 12 levels. Using Wah Wahte Radio and Bell ExpressVu satellite for delivery, students are required to participate in two to four radio broadcasts a week to help complete their independent study courses. Students are also encouraged to telephone their teacher for assistance. Prerequisite courses are available either in the community through the local school or learning centre or through distance education courses provided by other education institutions.

Seven communities can sign on to the radio broadcast at once and people in all communities served by Wahsa can listen to the broadcast. Since no student grade for participation is awarded, students can decide whether or not to listen to the broadcast. A distinct advantage of

radio delivery is that people other than registered students listen to the broadcasts. People are able to listen to the broadcast to learn – without having to enrol for credit.

The Ontario Ministry of Education considers Wahsa the same as other schools in the province and Indian and Northern Affairs Canada considers Wahsa similarly for funding purposes. The communities receive the enrolment dollars, which are administered through NNEC for Wahsa, based on the community's student enrolment numbers.

Wahsa's certified teachers, most of whom are non-Aboriginal, have lived and worked in northern remote communities that provide them an understanding and empathy for the learning environment confronting their students. Teachers work three hours per day broadcasting courses and attending meetings and are contracted to be available until 10 p.m. seven days per week for student contact. Although teachers are paid comparable to the public school salary grid, the teachers need to be better prepared than classroom teachers since the material and handouts for their broadcasts need to be mailed, faxed or emailed to students far in advance of the broadcast.

In addition to the teachers, Wahsa will hire qualified tutors for a maximum of four hours per week for individual tutoring of students in the remote communities. Wahsa also attempts to have each teacher travel to one or two communities each year to provide face-to-face instruction and to build relationships.

Each community served has a Wahsa Centre with a distance education coordinator who is responsible for providing technical, emotional and academic support on-

site. The coordinators are hired by the communities and have been successful at taking ownership for the programme delivery and supporting students – essential for the success of the programme.

Wahsa faces many barriers common to other distance delivery programmes but also faces some that are unique to its environment and delivery method. Each of the 20 communities Wahsa serves has its own political, religious, traditional and cultural differences; and often, the curriculum that has been developed for students in large, urban areas of southern Ontario is not relevant to those in the remote north. As a result, teachers have had to be creative and adapt the curriculum to meet the needs and the environment of remote communities.

New changes to curriculum requirements in Ontario are also causing apprehension, as is the recent elimination of Grade 13 by the province. These changes have resulted in adjustment in curriculum. For example, the content of the previous Grade 11 math is now comparable to a Grade 9 math with corresponding changes throughout the system.

The socio-economic environment confronting the communities has also been a barrier to delivery. The teachers and administrators recognise that many of their high school students are parents themselves and have other family and community responsibilities that must be recognized. However, Wahsa has found that by allowing the student flexibility in attendance and completion dates, the school has been able to support students who have faced family, cultural or community responsibilities.

The low literacy skills have been a barrier to course delivery. In most Wahsa communities, English is not

the first language; and many youth are instructed in their native language from kindergarten to Grade 3. Wahsa courses are open to anyone who wants to enrol and no placement tests are required. Barry McLoughlin, Vice-Principal of Wahsa, indicated that due to the lack of placement tests, many of the students over-estimate their English skills and have difficulty reading the secondary school print material. Transition and upgrading courses are beneficial, and students should be encouraged to enrol in foundation courses prior to registering for the core courses.

The vast majority of Wahsa students are female. Some do not have a specific education goal; some want a high school diploma while others want prerequisites needed to enter university or college. As with other remote Aboriginal communities, the lack of males enrolled in academic programmes concerns Wahsa and the communities. The cause of the low enrolment of males and the solution to increase their involvement has not been found. Wahsa staff question whether this imbalance is because women in remote Aboriginal communities have been able to set goals for themselves or whether the low enrolment is because males can obtain some employment without needing an education.

The theory that male students have a fear of the success that will accompany graduation is also discussed. Or, perhaps the fear is of failure. The environment is changing and many employment opportunities are now available only for those with a high school diploma. Consequently, Wahsa and the education coordinators are spending a large amount of time and energy recruiting and support male students to ensure they have the skills needed to obtain and maintain employment.

A challenge faced by most communities served by Wahsa is the need for someone or some group to take a leadership role in the implementation of distance education. In addition to visionaries like Margaret Fiddler, who pioneered distance education in the region, the distance education coordinators often must become the visionaries for their own communities.

Although many distance education coordinators have been successful visionaries, their concern is the need to have more authority to influence this vision in their community and with Wahsa itself. The coordinators, the majority of whom are female and many of whom are employed by the communities on a part-time basis only, also need to be provided adequate support and training to properly support their students. The coordinators believe Wahsa needs to understand and respect their importance in the community.

Wahsa has piloted online delivery using WebCT course management software. However, Barry McLoughlin, Vice-Principal of Wahsa, considers internet delivery as a potential barrier to some distance education students as the technology is still not reliable in remote communities. Barry argues that radio and satellite delivery is reliable and accessible as the technology is proven, and it can piggyback on existing and other proven technology. Most potential students have radio or Bell ExpressVu satellite systems for their television, while few have personal computers at home.

The views of those in the remote communities were somewhat different from those expressed in Wahsa's administrative office in Sioux Lookout and were much more specific and local. Doreen Kejick, Distance Education Coordinator in Frenchman's Head, expressed concern about the lack of supplies and the need for their

own classroom space rather than more philosophical education and social issues. Another barrier expressed by Doreen and supported by Barry McLoughlin includes the lack of suitable daycare facilities required for parents to study and attend class. The feeling of being torn between the Aboriginal and non-Aboriginal cultures and the lack of a safe environment for students to study were also common education concerns in the regions.

We found that what is considered a barrier by the education institution or head office is not always recognised in the remote community. To share concerns and successes, Wahsa maintains regular communication between the school and the communities.

Wahsa provides an excellent example of an institution that is determined to empower communities where few education options exist. By supporting independent learning through radio broadcasts, Wahsa is able to provide reliable access to students in remote communities in northwestern Ontario. With the support offered by the distance education coordinators in the communities and the daily access to teachers in Sioux Lookout, students are provided the incentive and support to be successful.

Keewaytinook Internet High School

Northwestern Ontario

http://www.kihs.knet.ca

The Keewaytinook Internet High School (KIHS) applies modern technology to the delivery of distance education courses in northwestern Ontario. The school provides an excellent example of and a glimpse into the future of distance education using internet technology.

This model was a carefully thought out plan by the Keewaytinook Okimakanak Northern Chiefs Tribal Council, who administers KIHS, and its computer services provider, K-Net. The school was developed from the vision of Margaret Fiddler who was also involved in creation of the WAHSA Distance Education Centre. Currently in semi-retirement, Margaret remains convinced that two-way, asynchronous, online programme delivery is a stable model where the potential has barely been tapped. KIHS was developed to achieve this potential.

Governed by a steering committee that has representatives from each community it serves, KIHS was started three years ago with Industry Canada Smart Community financial support. The school's purpose is to help students achieve high school graduation without having to leave their communities. The success of KIHS is a result of the unwavering commitment by everyone involved including the Chiefs and council members, communities, principal, teachers and support staff inside these virtual classrooms.

Presently the school delivers courses to 13 communities throughout northwestern Ontario; this number has grown from 8 communities the previous year with each location having a certified teacher and one support staff on-site. Each community provides the classroom, teacherage, and most on-site administrative services. The Principal, Darrin Potter, Guidance Counsellor, Lynda Kakapetum, and the school administration staff are located in Balmertown, Ontario. Although a few of the communities served by KIHS are also served by Wahsa, the two deliveries are viewed as complementary rather than competitive, as each provides a different delivery option for students.

KIHS is currently offering Grade 9 and 10 courses with the plan to offer Grade 11 and 12 courses in the near future. The minimum age of students is 14 while no maximum enrolment age is set. Total school enrolment for 2002/2003 is 143, up from 79 the previous year and 31 during the first year of operation. Students complete two Ontario Ministry of Education-approved courses per term.

The school year is divided into four blocks of 9 weeks with students required by the Ministry of Education to be in class from 9 a.m. until 4 p.m. daily. This schedule allows a student to complete eight courses per year in a short, flexible time frame that encourages success. Students work a half-day on each course, which is led by the on-site teacher or another teacher who has been assigned the course.

A KIHS teacher is located in each community. Teachers, all of whom have Bachelor of Education degrees, come from all over the world and are responsible for teaching one or two courses per year to all students while the remainder of their time is spent as tutors to local students. As the primary course instructors, the teachers are responsible for developing and posting weekly lessons, assignments and tests on the internet, with the local teacher assisting with assignments, mentoring, providing personal and academic support and supervising examinations.

Consequently, a teacher in Deer Lake may be responsible for teaching math to students in all communities, and a teacher in North Spirit Lake may be responsible for teaching English. A student at the site in Fort Severn would have his or her English assignments marked by the teacher in North Spirit Lake, but would also have the daily support of a qualified

teacher on-site. As a result, a critical relationship is formed between each teacher and his/her local students. The relationship reflects the enormous task and responsibility teachers have within this programme.

While KIHS is the academic unit, K-Net is the technical venture. Located in Sioux Lookout, Ontario, and operated by the immensely creative Brian Beaton and his staff, K-Net develops and maintains the K-Net Network. Using a variety of delivery tools including video conferencing, IP telephony, on-line forums, email and other web-based communications, this regional broadband network links First Nations and their service organisations. K-Net has developed a syllabic font keyboard for KIHS and also developed course delivery software that is used by KIHS and is made available without cost to any similar education organisation.

The barriers (or "challenges" as Margaret Fiddler calls them) this programme confronted are many. The major challenge that KIHS has faced since its inception has been its relationship with the Ontario Ministry of Education. Like many innovative education delivery projects, government ministries have limited or no guidelines on how to administer them. As a result, a unique relationship has developed between the Ontario Ministry of Education and KIHS.

Managing this delivery model within existing government guidelines while ensuring the Ministry standards are maintained is at the core of Ministry scrutiny. As a result, KIHS is regularly exposed to the Ministry's inspection; and although Ministry staff have been supportive, the time and effort needed to maintain the relationship is time consuming. The Ministry has daily online access to all students and lesson plans. This

scrutiny undoubtedly puts immense pressure on the administrators of KIHS.

KIHS is also perceived as a potential threat to other educational organizations in its communities. Is KIHS taking students away from local high schools? Is KIHS taking students away from other models of distance education, including WAHSA, which is available in some of the same communities? The answer to this question is probably yes. However, does it really matter?

If this form of education accommodates a student's learning style and the student achieves success in school and graduates, should competition eliminate different models of delivery? What does matter is that graduation rates increase and that students are given the opportunity to succeed at learning. The fact that students can now choose a preferred mode of delivery is encouraging and is not lost on the staff of KIHS or K-Net. Within communities that have a small population base and cannot offer an on-site high school programme, KIHS is filling an immediate gap in education services by allowing students to remain in their home communities. The only alterative would have students leaving home to attend school in an urban or residential setting.

One of the social challenges facing KIHS is that youth in its communities have been told that after Grade 8 or 9, the students would be leaving the communities to attend residential school. Having been brought up on this idea, Margaret Fiddler states that youth are "anxious to meet and embrace" that challenge and besides "staying home is not cool". Although this attitude is a serious challenge to the success of KIHS, public perceptions about where a 14 year old should attend school can change over time.

Natasha Toth, KIHS teacher in North Spirit Lake, was interviewed by us through videoconference and reflected the challenges and the variety of roles she has to undertake for students to be successful. The roles played by the KIHS teachers are numerous and include tutor, mentor, teacher and motivator. The barriers reflect those indicated by professionals in other remote communities. Barriers include the lack of access to reliable technology, the apparent lack of family and community support, limited local employment requiring upgrading of skills, and the challenges of developing some courses, such as sciences, for online delivery.

The features that make KIHS successful are extensive. As with the other delivery models we researched, the dedication of the staff at KIHS and K-Net ensures the internet delivery model will successfully move through the inevitable growing pains of any new programme. In addition to internet capabilities, video conferencing technology is currently available to some and eventually all communities. Since the staff of K-Net are devoted to developing local capacity to deal with potential technical problems in advance, the committed technical support offered by K-Net assures the KIHS delivery model has few disruptions.

KIHS benefits from continuity in staffing and the Principal, Darren Potter, previously a teacher in the KIHS community of Keewaywin, was promoted from within the school. All students are able to contact the Guidance Counsellor, Lynda Kakapetum, who is a local band member. Staffing decisions are conscious choices any school makes and can have dramatic impacts on the success of the programme. KIHS has retained staff by treating them as professionals and by showing commitment to staff development. Teachers with KIHS are given opportunities for professional development

and to gather as a group and plan curriculum and delivery methods.

Local community support of KIHS is substantial and proven. Communities wishing to be part of the programme enter into agreements with KIHS, provide classroom space for the programme site and accommodation for the teacher, and hire support staff for the programme. As such, the communities invest financially in the programme delivery and become delivery partners. This partnership makes the KIHS programme truly a collaborative effort among many stakeholders who are committed to the success of education.

A final, important feature of KIHS is the effort placed in creating a school culture. One of the difficult tasks in distance education has always been including the distant student into the delivery institution environment. Ensuring the student feels part of the institution has a tremendous impact on the success and motivation of the student. KIHS is devoting a great deal of effort on developing means by which students can interact with the school and feel part of a school culture; such as, placing class photographs on the website and providing interactive school activities.

Although relatively new, Keewaytinook Internet High School in northwestern Ontario has incorporated internet technology to provide another education option to students in the region. At present, KIHS delivers Grade 9 and 10 courses to 13 communities in the region by internet delivery. Each community has a teacher on-site who acts as a mentor, tutor and teacher to their local students. The creativity and dedication of the staff combined with the support provided by the communities has ensured success.

Aurora College

Northwest Territories

www.auroracollege.nt.ca

The Northwest Territories has some of the most isolated communities in Canada. Many are accessible only by air or winter road while the total population for the territory is less than many small cities in the south. Due to this isolation, distance education has the potential to play a major role in the delivery of education in the region.

Aurora College has the responsibility to meet the education needs of adult students in the territory. The college, a department of the territorial government, has a closer relationship with the Department of Education, Culture and Employment than provincial colleges in the south have with their respective education ministries. Employees of Aurora College are government employees rather than college employees and college buildings are directly maintained by the territorial government. This relationship allows faster response to community needs, but the bureaucracy inherent in this model can potentially suppress creativity.

Virtually all communities in the Territories have Community Learning Centres (CLC) operated by Aurora College and maintained by the Department of Public Works and Services. Most centres are new, well designed and are used for a variety of other community purposes in addition to education. Each centre has classrooms, office space, computer labs, and some centres have residences attached for visitors.

In addition, virtually every community in the Northwest Territories has an adult educator residing in the community. Each community is significantly different culturally, economically and socially. This difference, combined with the geographic isolation faced by communities in the Northwest Territories, requires an educator on-site to undertake a variety of student assistance roles.

Maureen Gross, Coordinator of Community Programs for Aurora College in the Sahtu Region of the Northwest Territories, emphasises that to properly support students, the local adult educator must recognise the environment unique to his or her community. Features of the environment include cultural traditions and ceremonies, education levels, access to technology, reading levels, history, available employment, politics, social barriers and other additional features unique to each community. Continued assessment of these features and community needs is essential, as the courses available must reflect the socio-economic and political realities of each community.

Essential for student success are the appropriate delivery technology and the quality of the instructors. Prior to internet-based delivery, Maureen Gross thought the success rate for print-based correspondence courses in the Sahtu Region was essentially zero. By adding the structure provided by internet delivery, the student success rate has improved dramatically. The quality and commitment of the instructor will also determine, to a large degree, the success of remote Aboriginal students in the territory. If the instructor makes an effort to build a relationship with the students and the course remains flexible with dates and delivery methods, the students have a greater chance of success. In the Sahtu region

instructors need to provide feedback to students as soon as possible to ensure students are on track.

Many of the challenges faced by Maureen Gross and the Aurora College adult educators in Deline, Tulita and Fort Good Hope reflect the unique challenges of their communities. The communities often request training opportunities on short notice based on available employment. For example, when a community is in need of a truck driver for a local employment opportunity, the college is approached to provide accredited driver training. The relatively small number of students in a remote community makes justifying the expense of bringing in an instructor difficult. As such, distance education is usually the most affordable option. The adult educators also indicate that the communities often approach the college to find out what courses could be offered in the community in addition to telling the college what courses it needs.

The Government of the Northwest Territories does not have Adult Basic Education (ABE) curriculum developed for distance delivery. Instead, the Department of Education, Culture and Employment contracted Chinook College in Calgary, Alberta, to provide these courses in the territory. Adult Basic Education includes six levels of study, ranging from basic literacy to coursework at the Grade 12 level. Courses in this programme enable participants to learn or relearn skills needed to meet employment, personal or educational goals. Participants in Adult Basic Education take a programme of study according to their personal needs and academic levels. Because of this individual approach, time spent in the programme will vary for each student.

Chinook College was chosen as all relevant courses were available online including "Cruising the Information Highway", a course that introduces students to the internet. Chinook College, a department of the Calgary Board of Education, provides online high school courses using WebCT software. The Northwest Territories Department of Education, Culture and Employment negotiated the relationship with Chinook College and monitors course delivery through Aurora College.

As noted, prior to the internet-delivery provided by Chinook College, the success of print-based correspondence courses was essentially nonexistent in the Northwest Territories. The existing system was chosen as online learning can provide more external structure, prompt responses to questions and assignments and a sense of community among the students in different communities.

The relationship with Chinook College has been beneficial but challenges exist. As the delivery contract is between Chinook College and the Government of the Northwest Territories, a number of bureaucracies are involved in course delivery including the territorial government, Chinook College, Aurora College and the communities themselves. The organizations appear to work well together, but the multiple levels of bureaucracy has led to local frustration. The primary concerns voiced by students in the remote communities about the relationship between Chinook and the territory relate to course timelines imposed by Chinook College and the general lack of flexibility surrounding course delivery. In addition, if not ordered very early internet passwords often arrive from Chinook College late and books will arrive long after the course has started.

Other challenges faced by students in the Northwest Territories reflect those in other remote Aboriginal communities. Maureen Gross indicated that in the Sahtu region the internet connections are fairly reliable; however, many of the websites used to deliver courses are not user-friendly and are difficult for new students to navigate.

A common misconception of many students in the Sahtu region is that they will be able to obtain employment without finishing their education. Instead, students rely on short-term, community-based courses for employment-related training. As a result, many students underestimate the importance of foundation skills and the amount of time it will take to achieve their education goals. Maureen Gross believes that the skills that ensure a student is successful on the land, where instincts are followed, are not necessarily as useful in modern education and employment situations where the student must incorporate long-term goals and long range planning to achieve.

Students respond positively to education programmes where relationships with the instructor and other students are incorporated. As students in remote Aboriginal communities assume they know everyone in their village, there is the requirement that the virtual classroom also be a small society. Enrolled in a distance education course with students from other communities, Aboriginal students need to have the ability to modify the class to create a small society. This sense of classroom community can be achieved by designing into the delivery the sharing of personal and community photographs, descriptions of communities, instructor-designed group assignments and other activities with the intent of developing a community sensation among the students.

Other challenges faced in the Sahtu region of the Northwest Territories are the lengthy turn-around time on assignments. Students often have to wait up to six weeks or longer to receive feedback on assignments from the instructor. Basic literacy skills are also low as is the level of computer skills in the communities. Access to reliable technology is also an issue. When software or hardware needs service, the adult educators in the communities can obtain telephone assistance from the information technology department at Aurora Campus in Inuvik, or the educators are on their own to try to fix the problem. When the solution is beyond their capabilities, the local adult educators have to send the computer to Inuvik for repairs, which can take days or even weeks to be returned.

The perception by students that they are being used as guinea pigs for course development was another challenge facing the delivery of distance education in the far north. Consequently, courses must be fully developed before being delivered to remote students, as students in these locations do not always have access to the technological and academic support necessary to overcome poor course design. The appearance of the internet site can also be a challenge as although animation can attract attention, too much can also be distracting for the student and can add to the already lengthy time needed to download the internet page.

According to Bernie Sheehan, Distance Education and Technology Coordinator for Aurora College in Fort Smith, the adult educators located in the communities are essential to the success of the courses. When asked directly about their role, the adult educators in the Sahtu region speak about the need for a wide range of skills. The adult educators assist in a variety of functions related to education and training but also find

themselves working long hours assisting community members with such things as resume writing and job searches. The on-site support also serves as a motivator to the students as self-directed learning is a challenge for students who are only used to face-to-face learning methods.

Since many students lack study skills, assistance must be provided by the adult educator as most online courses have deadlines, assignments and exam requirements. Homework and assignments must be completed within the presented timeframes and in many cases no work is completed if the adult educator is not present. The challenge for the adult educator then becomes one of supporting and encouraging the students, while not enabling them.

The dedicated work of the adult educators improves the success of the students. As facilitators, the adult educator's encouragement and support assists in overcoming barriers and makes the student and the community more comfortable with learning. The adult educators can also encourage the introduction of Elders into the learning process, which brings the culture, history and social atmosphere of education closer to traditional learning methods.

Each year Aurora College brings together the adult educators in each region to discuss issues and exchange information and ideas. As each region is unique, adult educators are encouraged to introduce their challenges and best practices on a local scale to share with others.

Faced with the mandate to provide education programmes to a region of 1,172,000 square kilometres with a population of only 42,083 people, of which approximately one-half are Aboriginal, the Government

of the Northwest Territories recognised the need to present Adult Basic Education programmes but could not alone provide the solution. As a result, the territorial government, and consequently Aurora College, entered into an agreement with Chinook College in Calgary, Alberta, for the distance delivery of needed courses. These courses are delivered with the support of Aurora College and adult educators who are located in virtually all communities. The support provided by the college and the adult educators has proven essential for student success in the remote communities of Canada's far north and has proven that distance education is a successful delivery method.

Cree School Board and Heritage College

Northern Quebec

http://cegep-heritage.qc.ca

http://www.cscree.qc.ca

The Cree School Board and Heritage College in Hull, Quebec, have delivered a bridging programme to students in remote communities in northern Quebec since 1993. The Cree School Board administers the programme through the Sabtuan Continuing Education in Mistissini. The programme is a preparatory programme for those students who did not pass their high school requirements and offers them a second chance to gain credits students need to allow them to apply and enter a CEGEP or college.

This programme connects Heritage College with seven remote Cree communities located 750 to 1800 kilometres north of Hull, Quebec. When the programme began, the mode of delivery was telephone

conferencing; then in 1997, the delivery method changed to two-way videoconferencing. The reason for using videoconferencing technologies over other distance learning technologies had more to do with learning style preferences than anything else. The belief is that videoconferencing is well suited to the "oral/visual learner" and most appropriate for the students in northern Quebec.

The delivery model used is quite straightforward. The teacher or instructor, located in Hull, dials into a conference bridge on a dedicated telephone line. Each community has a facilitator who connects to that bridge to allow for videoconferencing. Students are assembled in their respective communities in a fashion that allows them to speak directly to their instructor and to send and receive images from a document camera. Tests and assignments are transmitted and returned via fax.

The programme offers courses in effective writing skills, preparing for college success, math and small business administration. Although the specific course content is not modified for this programme, Heritage's long history with the Cree School Board has allowed them to modify approaches within the delivery methods to accommodate the diverse needs of these remote communities.

Modifying delivery to meet the needs of students is important for the success of any programme. The high cost of video conferencing is one clear barrier in this programme; and because of this barrier, the delivery has had to move from being 100 percent video based to about 50 percent. Participants connect with the instructor for their daily lessons and discussions and than disconnect to do their daily assignments independently. During this time, the students telephone, email or fax the instructor any questions or comments.

Another shift is presently underway to include a web-based method of delivery. Michael Burnatowski, Co-ordinator of the programme for Heritage College, clearly sees a web-based method as being more cost effective and still meeting the learning styles of the students.

Charles Matoush, Director of Continuing Education for the Cree School Board, indicated other barriers that the programme has confronted. He argues that the Quebec government lags behind in technological innovations and thus lacks the technological support for educational programmes that choose videoconferencing. He also mentioned the initial challenges confronted in building the capacity within the Cree School board to support the videoconferencing format.

One of the most crucial pieces of the delivery method is the on-site facilitator. This person is local and hired by the community. Their official role is to deal with the technical aspects of the video-conferencing, the faxing of materials and overcoming logistical issues on-site. In reality, the facilitator becomes much more and are a major reason for the success of this programme.

The on-site facilitator ensures students recognise their deadlines and hand in assignments on time while also motivating students to attend class. The facilitators also tutor students in subject matter when possible, and the stability of the person in the position is essential. Frank Schreiner, a Heritage College professor, indicates that students at sites where consistency with facilitators have the highest success in the programme. The importance of the facilitator is also illustrated by a comment from Peter MacGibbon of Heritage College who stated that on-site facilitators are absolutely essential for keeping

each local group aware, animated, and involved in a live conference.

The relationship between Heritage College and the Cree School Board has been in existence for a decade and has adapted to the needs and the financial realities of the communities while recognising the available technology and the needs of the students. Through on-going communication between the two organisations, courses that many in urban centres take for granted have been made available in remote Aboriginal communities in northern Quebec.

Headwaters Education Centre

Northern Saskatchewan

www.edcentre.ca

The Headwaters Education Centre is a branch of the Keewatin Career Development Corporation (KCDC), a non-profit partnership of 14 Northern Saskatchewan career and educational service providers. The goal of KCDC is to use information and communication technology for the social and economic benefit of the residents of Northern Saskatchewan as well as First Nations, Metis, rural and remote communities.

The objective of Headwaters is to increase access to career-based sources of information for instructors and students in remote communities. Funding for the project is provided by the Smart Communities Demonstration Initiative of Industry Canada. In 2002, KCDC was also selected as a regional management organisation for Industry Canada's First Nations SchoolNet Programme

to serve First Nations schools in Saskatchewan and Alberta.

Headwaters is responding to the education needs of 46 remote communities through the establishment of Community Access Centres (CACs) across northern Saskatchewan. Students, teachers and the general public use these centres extensively for educational and informational purposes. The plan is for the CACs to become the community foundation for the delivery of a variety of extended services for the community.

The Headwaters Education Centre employs two distance education coordinators. Ted Green and Debbie Mielke are certified teachers who design, test, administer and evaluate distance learning programmes. As coordinators, Ted and Debbie design and test the curriculum and technology required to increase access to relevant education courses in the north. Northern community members are retained to work in the Community Access Centres.

The education programmes delivered by Headwaters are internet based and are developed following extensive research and development with the communities. The focus of Headwaters is to create education courses and related resources at the Kindergarten to Grade 12 level plus some post secondary courses. The coordinators have developed, among others, Native Studies 10, Science 10 and Communication Production Technology 10 courses that are available throughout the north. Headwaters have also created an innovative Fire Fighter Training course in partnership with Saskatchewan Environment that provides the theory requirement needed to become forest firefighting trainees. The diabetes awareness materials, local songs, cultural resources and study material on uranium that are

available online offer teachers access to relevant local material in video, audio and written format for use in their classrooms.

Headwaters staff believe training local teachers in the remote communities on basic internet skills is first step to incorporating computer-mediated courses. The communities in the north provide three full days of professional development for teachers to access online teacher training that is developed at Headwaters using in-house, northern staff. As both Ted and Debbie are from the north, have taught in the region and know what works in rural, northern communities, the teacher training provides relevant access to materials.

Headwaters has faced a number of barriers to success. Although the people in Northern Saskatchewan traditionally have an attitude of cooperation, trying to meet individual needs has been a challenge. There is also the perception in the north that real life in Northern Saskatchewan is beyond the understanding of "the southern mentality". Decision makers in the south deal with requests from the north with misunderstanding or with a mandate that does not fully appreciate the northern, remote environment. Funding is also an ongoing concern and much time is spent on ensuring financial sustainability of programmes and courses.

One way Headwaters overcomes these barriers is by ensuring regular communication with all communities through an online newsletter to inform teachers, administrators and communities of news and events. Copyright is also structured to encourage all schools to freely access the material. Headwaters has also been successful at obtaining extensive press coverage in Northern Saskatchewan to share ideas and to advertise the services offered.

A personal relationship between the teacher and the student is essential, especially for students who are not internet savvy. Interestingly, Headwaters has found that remote communities may have students who are more confident with the internet than urban students although the students in remote communities don't always have reliable access to technology. Headwaters has also found that personal and community support is essential for success of any education programme. This support must reach all aspects of the student's life including personal, academic and technical.

The cost of software and internet connectivity has been a challenge for Headwaters. The high cost to purchase course software such as WebCT and Blackboard has resulted in Headwaters experimenting with other software options. Over time, internet connection has improved in northern Saskatchewan but it is still possible for communities to have no internet access long periods of time. Due to the limited capability of the available software, Headwaters has also found it challenging to incorporate items like virtual dissection into the online curriculum of a science course. Incorporating curriculum written by people who do not know the culture, languages, and environment found in the north is also a challenge for students in the north.

In addition, the public perception of distance education has been a challenge for Headwaters. Some people view distance education as an "easy fix" to all the issues facing remote communities. Others, including some teachers, students and communities, do not recognise the potential for distance education and will not support the initiatives developed by the coordinators in La Ronge.

Headwaters staff recognise the need to sustain and support partnerships with all levels of government,

schools and communities. To be successful, KCDC believe it is essential to research the needs and abilities of the communities before providing a service. Headwaters has been able to research this need and provide necessary education resources to remote communities in northern Saskatchewan.

Northlands College

Northern Saskatchewan

www.northlandscollege.sk.ca

Northlands College is one of eight publicly funded regional colleges in Saskatchewan. Serving the northern half of the province, the college has a population base that is 80 percent Aboriginal distributed across more than 45 small, remote communities. The college has three regional education centres located in La Ronge, Creighton and Buffalo Narrows serving the education needs of the respective regions.

The Buffalo Narrows regional campus serves the community of 1,400 people and the surrounding areas of northwest Saskatchewan. The campus has an inexhaustible Distance Education Coordinator, Ray Walters, on-site to assist students in completing post secondary courses. As with most local coordinators, his roles are many and according to Ray include that of facilitator, technical expert, tutor, mentor and motivator. Ray has daily contact with the students, has lived and was a teacher in the north for many years and provides the environment students need to be successful.

Developing the infrastructure needed to deliver university courses in Buffalo Narrows was a challenge. In a small, remote community such as this, it is difficult

to know what courses or training to offer. Northlands College was required to assess community and student needs to determine what courses were most relevant. This assessment is on-going and is essential to maintain enrolment.

The previous support model used in Buffalo Narrows didn't work as it failed to motivate the students, and students remained in the "upgrading model mentality" of seeing no future beyond perpetual enrolment in adult upgrading courses. Northlands College staff found that what had worked on campus in La Ronge did not necessarily work in Buffalo Narrows and a unique model needed to be developed to meet local needs.

The challenge in creating a positive environment in Buffalo Narrows was to find relevant courses and the appropriate on-site coordinator. As a result of proper planning and appropriate delivery methods, attendance in university courses in Buffalo Narrows is now at more than 90 percent. A full-time course load is three courses per term plus a study skills course. All students register with the University of Saskatchewan or the University of Regina and attend courses by videoconferencing through the Saskatchewan Communication Network (SCN).

SCN, the primary model of course delivery, was created in 1989 by an act of the Government of Saskatchewan to provide increased access to information and education within the province. Through its interrelated networks, SCN provides the people of Saskatchewan with cost-effective educational, informational and cultural programming and training opportunities. The SCN E-Learning Network delivers post-secondary and high school classes to almost 200 communities throughout the province.

Regional colleges manage SCN learning centres in over 50 communities in the province. In addition, 121 elementary and high schools, four SIAST campuses and more than 15 community centres in Saskatchewan are equipped to receive one-way video and two-way audio live, interactive programming by satellite. Students at Northlands College in Buffalo Narrows are able to view live classes from the University of Saskatchewan and the University of Regina with students from other communities throughout the province.

Communities wanting to access post secondary education programming are required to seek approval from their regional college. The college then ensures counselling and student support services are in place before authorizing a new post-secondary receiving site. Each site is subsequently responsible for purchasing the necessary hardware at cost from SCN.

In spite of the advanced technology available, access continues to be a challenge. The Buffalo Narrows campus has limited access to the internet as it shares computer labs with other programmes on campus. As the Northlands College campus is the only SCN delivery site in the community, the equipment is often required by other community groups during class time thus restricting student access.

The SCN delivery model is innovative and reflects a political decision by the Government of Saskatchewan to support the learning needs of remote communities. This model also recognises the declining availability of qualified instructors in rural and remote areas and ensures consistency of instruction among communities. Although colleges and communities close to urban centres have the same access to distance education courses, urban colleges are less likely to introduce and

adapt to new technologies since securing face-to-face access for students is easier to achieve. This situation leads to an apparent difference in technology skills between remote students and their counterparts closer to cities. Students in remote communities are more comfortable with technology than students closer to urban centres.

Several students enrolled in the university courses in Buffalo Narrows live more than a 100 kilometres from the campus. Since these students are able to watch SCN at the band office or school in their own communities where video conferencing already exists for students in Grades 9 through 12, Northlands College has arranged for these students to watch the video conferencing in their communities and travel to Buffalo Narrows only twice per week to meet with the coordinator.

Students in Buffalo Narrows are becoming more independent with this delivery model than with the traditional print-based correspondence model. According to Ray Walters, Distance Education Coordinator for the college in Buffalo Narrows, the videoconference model is successful because the model is flexible and meets the needs and lifestyles of the students. To ensure this flexibility, Ray needs to be aware of what is happening in his students' lives and must make regular changes to the support procedures and the course delivery.

As promising and successful as this delivery model appears, barriers are still experienced. A noticeable barrier was the time necessary for Northlands College staff to gain the trust of and build relationships with the Aboriginal students. Depending on the individual chosen for the job of distance education coordinator, this goal takes time and is not solely the responsibility of the

on-site coordinator. In the Buffalo Narrows delivery, Glenys Plunz, University Coordinator for Northlands College in La Ronge, was also regularly involved with the students. Northlands College believes that for the delivery to be successful, support must be built in at all levels of the institution.

Once trust between college staff and the student was established, the relationship flourished. Ray Walters gained this trust by consistently being available to the students and by immediately addressing social, emotional, academic and technical problems. This relationship pays off. Depending on the course, the student withdrawal rate is only 0 percent to 7 percent with the use of this delivery model.

Another challenge facing Northlands College was to find relevant courses available online. Courses that were made available by the universities in the south did not always meet the needs or education plans of the students. This lack of choice resulted in several students having to select unwanted courses to ensure their full-time student status was maintained.

The idea that face-to-face teaching is still more effective than distance education delivery is a barrier that continues to restrict the introduction of distance learning courses in remote communities. Distance education students in Buffalo Narrows argue that with proper student support in place, distance education can be just as successful as face-to-face delivery. To date, the Buffalo Narrows campus has had no withdrawals from their distance education delivery model, and ten students are entering their fourth semester of university courses. Northlands College in La Ronge has graduates who have completed their entire university degrees using a similar model. Glenys Plunz argues that a good reputation and

relationship between the college and the extension department of the universities is essential to ensure both institutions provide student support and encouragement.

Receiving instructor feedback is also a challenge for the students in Buffalo Narrows as a month can pass before assignments are graded and returned to the student. In some cases, students can complete three or more assignments before receiving any feedback from the instructor. This delay makes it difficult for students to know if they accurately comprehend the material and are progressing. Also, the feedback students do receive is often from university teaching assistants who were not part of the videoconference. Not being able to establish a relationship with the instructor limits the student's confidence in challenging perceived unfair grades or comments.

With SCN, the remote communities have no control over any part of the delivery apart from on-site support. Choice and supervision of instructors, curriculum and student evaluation is out of the control of Northlands College, which can be a problem as we personally observed professors in Regina and Saskatoon focus on the students in their classroom and appear to forget there are students learning by distance. Exams, assignments, and due dates set by the delivery institutions are rarely flexible and do not always reflect local needs.

However, local needs are reflected in the role of the distance education facilitator and the learning environment. Ray Walters believes that his role is one of technician for the SCN equipment, tutor, mentor, proof reader, motivator, exam supervisor, learner, and coffee maker. Having a degree or experience in the subject matter and teaching experience is beneficial to the position but dedication that goes beyond collective

agreements and job descriptions are needed to ensure student success. Ray often works long hours; and like adult educators in many remote communities, he is available to assist students what appears to be 24 hours per day seven days per week.

To encourage success, the students in Buffalo Narrows are subject to mandatory study skills tutorials while the La Ronge students have voluntary tutorials. Both sites use a feeder system and ladder students through adult upgrading courses into university transfer or credit classes.

Each SCN university broadcast is taped by the distance education coordinator and kept for three weeks to allow a student to watch the videoconference again. As with any university course, the vocabulary level required is high. To be familiar with the content and expectations of the instructors, the distance education coordinator sits in on the courses and the coordinator will be familiar with the material and can assist the student by clarifying concepts and definitions.

SNC provides one-way communication, which is the choice of the remote Aboriginal students in Buffalo Narrows as they feel comfortable being anonymous. Students can see the instructor while the instructor cannot see students in the distance communities. The challenge occurs when the remote students want to telephone the instructor and comment on a concept or answer questions posed by the instructor in class. In Buffalo Narrows the students are required to take a telephone into the hallway to avoid electronic feedback from the videoconference; dial a long distance number and wait to be connected to the instructor. By this time, the instructor is usually on a new topic, and the time it

takes to make the telephone calls results in the student missing new content.

With the support of staff from Northlands College, remote students in northwest Saskatchewan are able to benefit from the video broadcasting of university courses through the government-operated SCN. With the easy access to video conferencing maintained by the government of Saskatchewan and the personal and academic support provided by local staff, students have been remarkably successful and have been able to remain in their home communities while completing university courses.

Kwadacha Nation, C.N.C. & B.C.O.U.

Northern British Columbia

http://www.kwadacha.com

http://www.cnc.bc.ca

http://bcou.ca

Since the fall of 2001, the College of New Caledonia (CNC) in partnership with the Kwadacha Nation, has delivered a Teacher Assistant certificate programme in Fort Ware, British Columbia. Fort Ware is one of the most remote communities in the province. The programme accepted six teacher assistants into a fourteen-course, accredited certificate programme. The college hired qualified local teachers as college instructors and provided the instructors the support and training needed to deliver college-level courses.

A requirement of the Teaching Assistant programme is the completion of three university transfer courses. The

College of New Caledonia would not approve any of the local school teachers to instruct the college-level courses. As such, the college was unable to deliver the courses by the traditional face-to-face model due to the expense of conventional delivery in a remote community. An alternative delivery method was found by acquiring the courses in a unique partnership with British Columbia Open University (BCOU) in the lower mainland.

Students in Fort Ware registered with BCOU and completed work as a traditional print-based distance education students. Course material and textbooks were mailed to the students and assignments and exams were mailed back to a single BCOU tutor in the south. To encourage success, an on-site tutor was hired by the College of New Caledonia. This tutor was hired from within the local school teaching staff and added structure, technical and personal support to the course delivery. The on-site tutors, Alison Kuzio and Tara Devlin, provided scheduled class times, mentoring, exam supervision and other necessary personal and education supports. The on-site College of New Caledonia tutor also maintained contact with the BCOU tutor to discuss issues or student questions.

The barriers confronting this programme were many and reflected those of other programmes across Canada. The challenges were geographic, institutional, social and technological. The great distance between Fort Ware and an urban centre had definite cost implications. As one of the most remote communities in British Columbia, the community is accessible only by an expensive flight or a long drive on an often treacherous logging road. The community's distance from an urban centre resulted in cost implications but also made it

challenging to maintain a relationship between the institution and the students.

Institutional barriers presented the greatest challenges. The Kwadacha Nation in Fort Ware and the College of New Caledonia knew what a tripartite relationship with BCOU could look like. Initially, however, the university was unsure how to accommodate a request for courses by another college and were therefore unwilling to accommodate the request. With the help of Blaine Wiggins, First Nations Senior Liaison Officer for BCOU, many internal institutional barriers were overcome. A request from the College of New Caledonia that all students in Fort Ware utilize the same BCOU tutor was accepted and the flexibility of granting special exam dates outside scheduled dates was also approved. What appeared at first like minor concessions took almost a year to endorse by BCOU. These compromises ultimately contributed to the success of the courses – and the students.

Another institutional barrier encountered was the lack of any relationship between students and BCOU staff. Also, the limited hours the BCOU tutor was available for contact by the students was a challenge. All BCOU courses require the tutor, who is the primary instructor for the course, to mark the assignments and provide feedback. The BCOU tutor is only available for telephone contact by students at a set time and day. Students were notified by letter that contact with the BCOU tutor was only possible at set days and times. The first time a student in Fort Ware called on the wrong day and was told by the BCOU tutor that no assistance would be provided at that time - was the last time a student called.

As in most remote Aboriginal communities, text-based correspondence learning has not been successful in Fort Ware. As the traditional format of print-based correspondence learning was not flexible and was not a preferred way of learning in Fort Ware, incorporating print-based BCOU material in this project was a concern. The impact turned out to be minimal as this programme utilised an on-site tutor from the community. Although the Fort Ware students were very capable and in fact were in the top 5 percent of all BCOU students on their assignments, without this on-site tutor, it was apparent that many students would have withdrawn from the courses prior to completion as all students had extensive social, family and community responsibilities.

Technological barriers also existed in the programme delivery in Fort Ware. Programme and administrative tasks, which are primarily performed over the internet, are disrupted when the internet system does not work. Early in the school year, one such lack of service lasted four weeks, and had the students relied on internet contact with the BCOU tutor to submit assignments or ask for assistance, the students would have been unable to complete the course. As a result, telephone contact was chosen as the mode of tutor contact to avoid this complication as the telephone system, although delivered by satellite in the remote community, is reliable and more easily accessible than the internet.

Many elements in this programme ensured its success. The relationship between the College of New Caledonia and the Kwadacha Nation was well established as many courses and programmes have been delivered in partnership over the past 15 years. Continuity in staffing at the college and the relationships college staff form with the students and the community makes multi-year programmes an option for the college and Kwadacha

Nation. Also, the College of New Caledonia's effort to create an environment where students in this programme considered themselves part of the college by providing identification cards, access to bursaries, sharing of information and ensuring regular face-to-face contact between students and college staff add to the self esteem and success of the students.

Through the creativity and willingness of Blaine Wiggins to find solutions and reduce internal institutional barriers, the addition of BCOU into the relationship between Fort Ware and the College of New Caledonia was successful. The impact of Blaine taking the time to drive to Fort Ware to visit the students was positive and the administrative barriers Blaine and his assistant, Kara Cunningham, overcame were essential to the success of the students.

The recent elimination of the First Nations liaison officer position at BCOU is detrimental to student success in remote Aboriginal communities in British Columbia. However, this elimination of the liaison officer position may provide a market for other innovative distance delivery institutions such as Athabasca University, Maskwachees Cultural College or Blue Quills First Nations College to meet community need.

The College of New Caledonia decision to hire local teachers as on-site tutors ensured necessary and continuing support for the students. The support that the Kwadacha Nation provided in the form of maintaining wages while the students were in class, assuring wage increases and confirmed employment for students who successful completed the programme all reflect community support for the programme and the delivery.

As with all of the case studies, the students were the best practice of the Kwadacha delivery. All the students had full time jobs and family responsibilities yet were still successful in their studies. Without the dedication of the students, the educators and the communities, the distance delivery courses would have little chance of success.

Chapter 3

BARRIERS TO DISTANCE EDUCATION

Assisting in the education of any group of people brings with it a challenge and a responsibility that must be recognised and accepted by the educator. Every student and each community reflects distinct qualities that must be respected and incorporated into curriculum and course delivery. Recognising and incorporating this individuality and cultural context into distance learning in remote Aboriginal communities is even more challenging than in traditional education because of the existing barriers to success.

A number of internal and external influences affect the design and delivery of any distance education programme. Recognising and where possible predicting the impact of these influences prior to design and delivery is essential to the success of the programme. William Rothwell of Pennsylvania State University and Peter Cookson of Athabasca University (1997) confirm the importance of monitoring trends and adapting planned learning experiences to emerging challenges.

In this chapter, we will explore some of the barriers to successful distance education programmes that exist in remote Aboriginal communities in Canada. The barriers discussed are common in many communities and with many education institutions. By recognising these

barriers, educators will be more likely to develop strategies to overcome the barriers and increase the probability of student success.

Politics

Barbara Spronk (1995), who worked at Athabasca University for 22 years and then moved to Cambridge, England where for six years she was Executive Director of the International Extension College, suggested that the primary influence on programme planning with Aboriginal students is politics. In our view, politics does not necessarily involve only provincial politicians or Chiefs, but incorporates the influences of bureaucracies and the needs and requests of groups that have controlling interests in education.

Jim Teskey, Education Advisor for Keewaytinook Okimakanak in Balmertown, Ontario, working in Aboriginal education for 20 years, 9 of which were within Indian and Northern Affairs Canada, contends that the bureaucratic model of the federal government department can stifle creativity and erode the successes of distance education programmes. Although many individuals within the department have good intentions, the regulations, routine, red tape and the lack of adequate and inspired funding models for innovative delivery makes distance learning in remote Aboriginal communities a challenge.

Indian and Northern Affairs Canada (INAC) does provide Post Secondary Education (PSE) support to eligible First Nations and Inuit students (although not to Metis students) through the Post-Secondary Student Support Programme (PSSSP) and the University College Entrance Preparation Programme (UCEP). These programmes are designed to support students with the

cost of tuition fees, books, travel, and living allowances, when eligible. Support is also provided to post-secondary institutions for the development and delivery of special programmes through the Indian Studies Support Program (ISSP). The PSE Program is funded as a matter of social policy by the Canadian government and has evolved as a result of government policy. As of 2002-2003, regional core budgets of the programme totalled $298 million.

Many remote communities argue that this support is delayed by bureaucracy and that the support provided does not meet the need. Although preserved in treaty, the term "education" is often defined by those in Indian and Northern Affairs Canada as referring only to traditional schooling from kindergarten through high school. Influential Elders, such as Mike Steinhauer of Saddle Lake First Nation, argue that Aboriginal peoples have traditionally referred to education as "a life-long venture" (Steinhauer, 1996). Consequently, Aboriginal communities believe that in addition to kindergarten to Grade 12, the definition of "education" supported by Indian and Northern Affairs Canada should also include post secondary education and distance education delivery models. Given this difference in perception, funding for innovative delivery of distance education courses is often not available; and without Industry Canada's Smart Communities funding, some of the most innovative delivery models to remote Aboriginal communities in the country would not have occurred.

Although many remote Aboriginal communities fall under federal government responsibility, education is primarily a provincial responsibility. With recent provincial funding cuts to education, the increasing need for education institutions to earn additional income outside base government funding also becomes political.

The financial implications of curriculum development and the costs of marketing distance education courses to remote Aboriginal communities end up reflecting the decisions of provincial politicians instead of the communities themselves. Rather than delivering distance education courses as a service, public education institutions are forced to decide whether the financial return of adapting curriculum and delivering distance education courses to remote communities is financially viable.

British Columbia Open University (BCOU) recently eliminated its First Nations liaison staff. BCOU argued that the elimination was due to reduced budgets and the small number of student full-time equivalencies (FTE) produced by student registrations in remote Aboriginal communities. The impact has serious political ramifications. A large number of remote Aboriginal students and communities in British Columbia no longer have ready access to necessary learning supports.

The influence of politics can also be internal to the organisation and the community. Public education institutions are inherently bureaucratic and multiple processes are involved in decision making. Also, our research found that many faculty and administrators in traditional education institutions have little or no experience with distance education and believe it will lead to job losses or a reduction in quality.

Excluding institutions such as Athabasca University and British Columbia Open University that concentrate on the delivery of distance education courses, the environment in most traditional education institutions merely supports classroom-based instruction and has failed to properly promote the benefits of distance education within the institution or adopt successful

distance learning supports. The lack of financial and philosophical support is a major internal political influence that undoubtedly challenges the design and delivery of distance learning by some education institutions.

Also, many collective agreements with faculty are only now recognising the teaching of distance education courses and some agreements actually impede distance delivery by providing concessions to faculty for teaching methods other than face-to-face classroom delivery. Even at our own institution, faculty are provided a two-course release to teach one online courses for the first time. This release effectively doubles the instruction cost for first delivery of an online course; and with the reduced budgets already available, it is more difficult for the institution to commit to distance delivery. In addition, enrolment levels are often set much lower for distance delivery than in face-to-face classes again increasing the cost to the institution. As a result of these concessions, in many cases the internal organisational influences will be more difficult to overcome than the barriers imposed by government.

The political environment of the remote communities can also be a barrier to delivery. The culture and history of education for remote Aboriginal students is already a barrier when considering the negative impact of residential schools and non-traditional teaching methods. Depending on the mandate of the community and the emphasis placed on education by community leaders, a distance education programme can be a success – or a failure. If the community is not encouraged to embrace education by its leaders; Elders, administrators and community members will find it more difficult to become involved and support distance education delivery – and their students.

Curriculum and Delivery Models

The search by remote Aboriginal students for the benefits of western education, while maintaining their culture, traditional learning and language leads to conflicting motivation as the focus of the two approaches can be very different. The interaction between the western and Aboriginal learning approaches can lead to a dilemma for course designers and must be recognised and questioned by delivery institutions and the communities.

Is distance education merely a means of dispensing western education (Arger, 1987)? Is it a continued consequence of colonisation? International research by Guy (1991) found that students in the Bachelor of Education Programme in Papua New Guinea failed their fourth year of the programme because the students were required to leave their communities and move to urban areas and attend traditional classroom education. The same occurrence is found throughout Canada where students from remote communities are removed from their support networks when required to move to large urban centres to attend classes. The number of people in the students' urban classroom can exceed the population of their entire home community – and all without a support network to assist!

Blue Quills First Nations College in northeast Alberta encountered this situation when students who completed the first two years of the Bachelor of Education programme on-site were required to move to Edmonton to complete the final years of the degree. Rather than leave their communities, many of the students transferred to a Bachelor of Arts or Bachelor of General Studies degree programme that the student could

complete without leaving their communities. Now, in partnership with Athabasca University and the University of Alberta, Blue Quills is offering the Iyiniw Kiskinohamatowin programme that allows students to complete the final two years of the programme at Blue Quills where the programme respects Aboriginal culture and the specific needs of the students.

Geography also affects the design of distance education curriculum. In every community we visited, concern was raised by administrators and students about the lack of a remote and northern perspective to the curriculum. Whether the curriculum was developed in Toronto or Calgary, students in remote Aboriginal communities could not always relate to the subways, shopping malls, urban and non-Aboriginal concepts incorporated into the curriculum. To ensure courses are relevant to students, course curriculum needs to be flexible and must allow instructors to incorporate northern images and perceptions into course design and delivery. Confirming relevancy for Aboriginal learners in remote communities ensures students are not only able to acquire information, but also be able to apply it!

Curriculum that is not flexible in its design and delivery opposes success in remote Aboriginal communities. By providing student access to British Columbia Open University tutors only during certain hours of the week and where this schedule does not fit the needs of students in Fort Ware, the students are essentially denied access to their instructors. Or, adhering to strict course delivery schedules that do not allow for community ceremonies such as funerals and cultural events does not allow for the dynamics of remote Aboriginal communities. KIHS builds extra weeks into every course delivery while Wahsa has its instructors available to students every night of the week. This flexibility

ensures the curriculum and delivery model are designed to meet the needs of students.

Perception of Distance Education

The success of distance education programmes has been laden by a misconception of the quality and motives of institutions offering such programmes. Private companies continue to offer "accredited" distance education courses on matchbook covers, on internet "pop-ups" and on late night infomercials. As such, the mistaken image of distance education as a producer of second-rate programmes continues to be a barrier.

Much of the research into distance education has focused on only limited aspects of the discipline, such as the student drop-out rate compared to traditional classroom instruction, rather than focussing on the larger picture (McIlroy & Walker, 1993). Less than 40 years ago, only South Africa and the USSR had distance teaching universities (Keegan, 1991). With the formation of The Open University in the United Kingdom in 1969 and Canada's Athabasca University in 1970, as well as new and traditional institutions offering distance education programmes throughout the developed and developing world, the image of distance education as second-rate should no longer be entertained.

The Open University is Britain's largest university with over 200,000 people taking courses each year. To date, over two million people have studied at the Open University with students' ages ranging from 17 to 94! Athabasca University courses are fully accredited and transferable to other education institutions in Alberta and throughout Canada. Athabasca University has also developed innovative partnerships with remote

Aboriginal communities to ensure students have access to relevant course material.

As early as 1985, evidence existed that the quality of work completed by distance education students was equal to or better than traditional face-to-face students (Moore, 1985). Also, the increased status of distance education programmes can be confirmed through the recognition given them by "traditional" education institutions and the acknowledgment of distance education graduates by employers and the community.

However, although quality, technology and techniques have improved to the point where distance education is leading education innovation, distance education is still viewed as second-rate by some. As the number of qualified graduates of distance education programmes increases and remote communities and institutions continue to apply the money and expertise to ensure student success, distance education will be a recognised and supported delivery option with quality and cost equal to or better than face-to-face learning.

Access to Appropriate Technology

It is difficult to envision any well planned and researched distance education programme not being an appropriate alternative to traditional face-to-face education. With proper assessment of the community and students, virtually any subject can be delivered by distance education to remote Aboriginal communities. However, not completing a technology needs assessments, or not properly using the assessments can lead to student and programme failure.

Blue Quills First Nations College in northern Alberta was presented numerous internet-based programme

proposals by outside institutions that failed to research the environment. The institutions claimed that the courses had been successful in urban centres and the technology utilised was current and provided an excellent opportunity to increase access for local students. Blue Quills staff were suspicious, as although modern technology was incorporated on Blue Quill's campus, many of the students in the region lacked easy access to telephones let alone computers with internet connections.

Technology has become an integral part of distance learning and the incorporation of the appropriate method has a direct impact on the success of the delivery. While distance education is the only practical means of reaching some target groups, the medium has traditionally consisted of print-based material. These traditional methods were not always able to provide the accessibility, interaction and support necessary for Aboriginal student success. With the introduction of new technologies, student access has increased but unfortunately many of the other barriers to student success remained.

Researching the needs of the student and adapting curriculum and technology to meet these needs, it is possible to correctly incorporate the appropriate technology. We have examples in this book of successful radio, videoconferencing, text-based correspondence and internet delivery of courses to remote Aboriginal communities. Each model was successful because it researched the best technology and designed the delivery to meet local needs.

The debate over computer-based learning versus computer-mediated learning continues. Our research indicates that computer-based learning is not effective as

a teaching tool as it only provides pre-composed materials consisting of exercises and activities designed to be completed with minimal or no personal interaction or feedback. Computer-based learning, as with unsupported text-based correspondence material, is seldom successful as Aboriginal students are unable to build a relationship with textbooks or technology. As such, this model does not respect the cultural or social needs of Aboriginal students.

Computer mediated learning includes synchronous (same time) and asynchronous (different time) interaction between the students and the instructor. This model is more effective since Aboriginal learning is traditionally based on story telling, relationships and experiential activities and is not a text-based classroom environment. As learning is traditionally obtained through these relationships and experiences; computer-mediated communication can be effective if opportunities for experiential learning and relationship building are incorporated into the course design and delivery.

Access to appropriate technology can be affected by a number of factors; including, demographics, standardisation, institutional policies, and the definition of the target group (Bates, 1997). Access to technology is also limited by costs. Many new technologies require large capital investments to purchase hardware or software and require the student and the institution to be trained how to use the technology. Failure to provide this financial commitment and technical support will eliminate any advantage the technology provides.

The latest technology is not necessarily the best option. Communities and institutions need to be aware of student access to different technologies to determine the

best option available to ensure technology is a motivator, not a barrier.

Student Independence

As described by Dr. Desmond Keegan (1991), an international leader in distance education, the ultimate autonomy is for the student to set objectives, methods of study and evaluation instruments. The instructor, in this example, becomes a resource rather than a teacher. Due to issues of transferability of credits, student motivation and quality control, it is unlikely that this level of independence will be available in the majority of programmes for the immediate future. It is also doubtful that remote Aboriginal students want or will be successful with this degree of independence.

Many distance education students want the independence provided by the elimination of classrooms and timetables while others thrive on structure. Too many unstructured correspondence courses remain in their boxes abandoned by the student. Although most students in remote Aboriginal communities want some structure, many courses do not provide the degree of structure required to be successful. As a result, the delivery institution must recognise the degree of independence needed and incorporate the appropriate degree of structure and independence.

Often learning in isolation, it is vital to recognise that distance education students are required to become independent to be successful. A degree of independence can be encouraged and reinforced through incorporation of a number of the features described by Michael Hough (1984) are provided:

- A supportive environment;
- Techniques that reinforce learning with an emphasis on clear expectations and extensive feedback;
- Incorporation of auditory and visual imagery; and
- Self-paced learning.

Some distance education courses eliminate student independence by applying rigid deadlines to events such as exams and assignments. If some flexibility is incorporated in these deadlines, the limits do not reduce or eliminate student independence since some selection can remain with the student. Many students participate in distance education not by choice but based on their geographic, social or financial circumstances; and although some structure imposed by the community or the institution is needed to ensure success, eliminating flexibility and independence does not reflect the culture or the needs of the students. Students in remote Aboriginal communities need the structure of deadlines, but some flexibility is needed in these dates for the student to be successful.

Culture also plays a role in student independence. Aboriginal people traditionally learned by listening to stories told by the Elders and not by reading textbooks or by attending formal classes with a teacher from outside their community. By imposing or expecting too much independence on a group of people who believe in relationships and social learning, the curriculum developer and instructor will restrict the positive influence of the culture, and ultimately the success of the course.

Too much independence can equally be a barrier to the success of a course as too much structure. Although

student independence is an important feature, developing a distance education course that encourages social contact for Aboriginal students may be as important. This required social interaction can be achieved by ensuring the instructor and the students have opportunities to build relationships. Through the design of the course, students should also be able to interact and build relationships with other students in their class. Aboriginal students in remote communities should be provided with deadlines, but these dates must be somewhat flexible to reflect the students' environment. With proper student support structures in place, the deadlines will encourage success for the majority of students.

Cost

A major challenge facing distance education that is especially evident across Canada today is the reduction of government financial support to education. Without the required financial support for distance education, the other barriers become irrelevant.

In an admirable effort to reduce deficits, provincial governments have reduced funding to school boards and post-secondary institutions. Consequently, education institutions have had to increase tuition, increase class enrolment and reduce the number of courses made available by innovative means of delivery. The education institutions have also had to reduce their capacity to introduce new technology.

If the full cost of education is examined, the financial commitment needed for distance delivery is often comparable to the traditional face-to-face approach. A study by Gruber and Coldevin (1994) examined the need for properly trained Inuit people to manage the new

territory of Nunavut. The study examined the high cost and vast distances involved in education delivery in Canada's north and compared the cost of moving students to urban centres to complete their studies versus the incorporation of distance education. Due to the high cost of travel and other expenses, the research found that the cost of distance education methods for students in Nunavut was comparable to and, in fact, was less expensive than the alternative.

In addition to the cost savings and the benefits of having the training delivered on-site and allowing the student to remain part of the community, in the Nunavut example, the distance education model allowed more money to be spent on instructional material and translation. Provincial, territorial and federal governments need to recognise the benefits of distance learning and realise that by supporting distance education in the short term, remote Aboriginal communities will be better off socially and financially over the long term.

Implementing distance education courses is actually cost effective for the government, the institution and the communities. The financial and social costs of sending Aboriginal students from remote communities to an urban classroom or residential school is enormous, and the success rate is often only marginal. If students remain in their communities while learning, students can continue to have access to their support networks while working and contributing to the social, cultural and financial economy of the remote community (Wagner in Keegan, 1991).

John Bottomly and Jocelyn Calvert (1994) as well as Hilary Perraton (1994) examined the social value of education and argued that quality is the most important issue facing post secondary education. However,

without funding, quality is difficult to achieve. With the reality of reduced government funding, institutions need to examine the costs and benefits of any education programme. Although the benefits of distance education programmes in remote Aboriginal communities far outweigh the economic costs, we, as educators, must attempt to retain quality in spite of today's reduced budgets.

Cost effectiveness of a distance education programme must be explored by examining both quantity and quality (Rumble, 1987) and the most cost efficient means are not necessarily the most cost effective. If insufficient funding is available and the quality of the delivery is correspondingly low, the number of students who succeed will be respectively low. Thus financial commitment needs to be adequate to ensure the quality required for student success.

In addition, when proposing distance education programmes, we need to inform and argue the value of our programmes on issues other than economics, especially with reference to remote Aboriginal communities. The financial cost of delivery in a remote community may be higher than in an urban environment, but we need to research and introduce logical, long-term arguments such as the social and economic benefits to the student, their family and the community that result in a reduction in social assistance funding to the community, lower health care costs and a reduction in other socio-economic costs.

It is argued that public education cannot truly be treated as a business (Kato, 1994). Public education must factor social costs in with economic costs in determining the benefits of education. Interestingly, the business of distance education is growing with more accredited,

private, for-profit institutions offering their courses by distance. In business it is easy to define revenue and expenses to determine profit margin. In distance education the financial costs can be examined but the true outcomes and successes are both tangible and intangible. Governments need to be lobbied to recognise that, if assistance is provided to education institutions for the development of distance education courses, learning can occur at a far lower cost than having students from remote Aboriginal communities move to urban centres and attend traditional delivery institutions.

Even if a student in a remote Aboriginal community does not complete the course – it can be argued that the student has learned something and gained some confidence to assist future success. Governments are examining education in terms of final grades and financial costs per student, without examining the full impact of distance education on students and their communities.

Key Points of this Chapter

Each distance education programme and every remote Aboriginal community will encounter barriers, or challenges, that are common across Canada and others that are unique to their specific environments. This chapter examined a number of common barriers that we encountered in our research.

- Politics: This barrier is encountered by every distance delivery case study. Political influences that challenge the successful delivery of distance education programmes include the bureaucracy within the education institution as well as decisions made by band, provincial and federal governments. With recent decisions by

government to cut funding to education, it is becoming more difficult to deliver appropriate courses to remote Aboriginal communities. In addition to the decisions of government, the bureaucracy inherent in all parties can be a barrier to success.

- Curriculum and Delivery Models: Distance education curriculum is often developed by people who have little or no understanding of remote communities or Aboriginal culture. The curriculum is not relative to students in remote communities and is designed for a culture different from that of the course writers. In addition, the delivery model often lacks the flexibility needed to support students in remote Aboriginal communities. These barriers reduce the relevancy of the curriculum and the delivery does not always meet the needs of the students it was designed to serve.

- Perception of Distance Education: The view remains that distance education is less successful than the traditional face-to-face model of delivery. In part due to the poor history of distance education in remote Aboriginal communities, many students have had an unsuccessful experience with this method of delivery and are reluctant to embrace it. The fact is that distance education, if properly delivered, is as successful and may even be more successful for students in remote Aboriginal communities.

- Access to Reliable and Appropriate Technology: Examples exist of distance education courses delivered using technology that few students have access to - or delivered using technology

that continually failed. Depending on the technology chosen and its reliability, technology can be a barrier to successful delivery. The most appropriate technology needs to be chosen and the necessary supports incorporated. Using the newest technology is not always the answer.

- Student Independence: Although adults want to be independent, distance education courses have traditionally provided too much independence for Aboriginal students in remote communities. Aboriginal students traditionally learned from listening to stories from Elders and relied on relationships for learning opportunities. Expecting a student in a remote community to learn on their own has been a barrier to success. Educators need allow some independence but incorporate social interaction within the course materials.

- Cost: Distance education is perceived to be more expensive than face-to-face delivery. As such, many institutions are hesitant to design and deliver by this method when government funding is already decreasing. In many cases, the financial cost of distance education is less than traditional face-to-face delivery. Examining the social and long-term economic benefits of distance education is vital for the development of self-confidence and economic independence. Distance education will assist remote Aboriginal communities as the communities strive for independence. Government and academic institutions need to financially support distance education.

Barriers to distance education success are many. Through researching their impact and developing strategies to manage the barriers at all stages of delivery, these barriers can be reduced to mere hurdles that will have little or no impact on student success. Failure to recognise barriers and their impact will, however, ensure programme failure. Prior to the development or purchase of distance education courses or programmes, it is essential that everyone involved investigate, assess and discuss the barriers that may affect delivery. It is only through examination of these barriers that strategies to overcome can be established and ensuring the success of the programme.

Chapter 4

LEARNING STYLES

The concept of learning styles is highly contentious within Aboriginal education. Most of this debate revolves around the fact that studies on learning styles lead to the implied assumptions of differences in cognitive abilities among races. If it is agreed that cognitive processes are a result of cultural, social and economic factors, then any inferences of cognitive abilities being defined by race are incorrect.

Cultural, social and economic forces present themselves at a highly local or community levels, which lend themselves more to analyses around learning strengths of an individual or community than of a racial group. Our contention is that the wiring of our brain to perform cognitive functions is a direct result of the cultural, social and economic factors within which we live – not by whether or not we are Aboriginal. According to Professor Art More of the University of British Columbia (1999), the key to understanding how people learn is to look at the person's strengths and the nature of the learning task itself. Setting up this framework will require a discussion on traditional learning styles.

Traditional Aboriginal Learning Styles

The oral tradition is common among all Aboriginal people. Historically, legends and stories were passed down through the generations with a special role given the Elders. It was, and is, within these stories that the values and skills of a people are passed along to a new generation (Tafoya, 1982). The details of these stories allowed for very different teachings for listeners at various stages in their lives. Rich in symbolism and metaphors, the same story heard as a young child teaches different lessons to an adult.

Within this oral form of communication, non-verbal cues like eye contact and silence are important learning tools with Aboriginal people. These signs are often foreign and uncomfortable for the non-Aboriginal instructor or course developer who will not recognise or include these behaviours in their course.

The modelling tradition, or "Watch-then-Do," was the primary means of acquiring and perfecting skills (More, 1986). This tradition means that before a task was performed, it was observed until such time as the student believed she or he could complete the task. In a society where resources are scarce and starvation a reality, the "Watch-then-Do" means of acquiring skills makes sense. The student may run the task a hundred times through their head but only when they feel comfortable and secure will the task be attempted. This process was the most effective and efficient way of learning.

Student Strengths

Student strengths are a product of cultural, social and economic forces that influence the way one learns. Aboriginal culture in Canada offers much diversity.

Through this diversity writers, such as Dr. Clare Brant and Rupert Ross, have synthesized five core beliefs, or ethics, which appear to be central to most First Nation's cultures. (Ross 1992) These five core ethics have a profound effect on instructional methodology, classroom management and student assessment.

For the educator in an Aboriginal community, awareness of these ethics is crucial. Often things happen in an educational setting that, as educators, we seek out answers as to why these things occurred. Knowing these ethics exist may not bring you any closer to understanding Aboriginal culture, but the principles will provide a context for meaning.

The five core beliefs are:

1. The ethic of non-interference: Aboriginal people resist interfering in the rights, privileges, and activities of another person. This ethic alone has enormous implications for education and for the student. Donald Dietrich, in his Master of Distance Education thesis, suggests that "this is the root of the idea that students should come to learning naturally out of curiosity instead of being compelled to learn" (Dietrich 2000). Understanding the ethic of non-interference also gives us insight into the value of role models and the value placed on respecting the knowledge of Elders.

2. The ethic that anger not be shown: To show anger affects the cohesion of the whole group. It is better to suppress your own feelings than affect the whole group.

3. The ethic respecting praise and gratitude: Appreciation is shown by asking that person to continue. Educational implications of this ethic suggest that praise and gratitude put undue pressure on an individual and could make one reluctant to attempt new endeavours unless success is assured.

4. The conservation-withdrawal tactic: This ethic clearly coming from a need to conserve effort, energy and resources suggests that new ideas be practised mentally before the feat is actually attempted. This ethic has an implication in education as the instructor may view the student as not knowing the answer. Rather, the student may be practising the idea mentally before applying.

5. The notion that the time must be right. To perform at an optimal level with maximum results, the time must be right for that individual. Whether preparing oneself emotionally and spiritually for a course of action or seeking guidance in the natural elements, conscious steps are taken to determine the timing of actions.

These five ethics are manifested in different ways in different communities. In other words, understanding the list of five is one thing but recognising and incorporating the ethics at the community level is the challenge. All successful distance educators, whether they know it or not, have incorporated these ethics into their courses.

Aboriginal communities are family centred with Elders holding a paramount role in teaching. As a social reality, successful programmes should include Elders in

the design and delivery of distance education courses. Inviting Elders helps curb the negative legacy of residential schools and outside educators, which have had enormous social implications in native communities.

The loss of parenting skills is one of the greatest negative effects inflicted on Aboriginal communities by the attempts to assimilate the people into the non-Aboriginal culture. With modelling being so important in Aboriginal learning, little chance exists for youngsters educated in residential schools to see parenting role models in an institutionalized setting. Lack of these role models resulted in Aboriginal children having no teachers to reflect traditional means of learning. Involving an Elder in the delivery of distance education courses respects the traditional approach to learning while adding legitimacy to the courses.

The socio-economic factors that have affected learning styles focus on poor economic conditions, which precipitate health problems as well as historical economic displacements. Many Aboriginal peoples were not sedentary. The imposed shift from nomadic life to sedentary life by forcing Aboriginal people onto reserves and settlements has had a disproportionately negative effect on male populations.

In a traditional hunting and gathering Aboriginal society, the role of the male was very well defined. The shift into villages and reserves has left males with undefined roles that unfortunately have translated into idle time. With high unemployment rates evident in many remote Aboriginal communities, the other social ills surface. It is little wonder why the high school drop out rate for male Aboriginal students is so high. To counter this dropout, distance education courses need to be

developed that deliver practical, employment-related skills to males in remote Aboriginal communities.

All these cultural, social and economic factors impact on the learning styles an Aboriginal student brings to the distance education environment. Whether negative or positive, these factors created the strength of the individual student to various degrees and tell us, as educators, what learning tasks may be more successful than others.

The Nature of the Learning Task

The clearest outline of learning tasks that may be better suited for students with specific strengths is taken from the research of Professor Art More from the University of British Columbia (1987, 1993, and 1999). Professor More presents the following examples of learning tasks:

1. Global versus Analytic: Refers to moving from the whole picture to the parts versus from the parts to the whole picture. The dominant paradigm in education looks at the parts and then the student is lured into seeing the "big picture". Dr. More suggests that Aboriginal learning strengths are better suited to first looking at the global and then breaking it into parts. This concept has enormous implications on teaching techniques and curriculum development for distance education courses.

2. Verbal versus Imaginal: Traditional Western Education focuses heavily on verbal explanations using dictionary style definitions. The suggestion is that Aboriginal students learn better by using images, symbols and diagrams in communicating ideas in line with the

complexities of imagery coding within traditional oral culture.

3. Concrete versus Abstract: A person will be more successful by developing initial concepts with concrete examples as opposed to introducing a concept as an abstract rule. This has implications in the relevance of material used.

4. Trial-Error-Feedback versus Reflective: One of the learning strengths of Aboriginal students is their reflective abilities. This counters the dominant way of teaching, which involves attempting a skill, having an error then receiving feedback, and trying again until the skill is mastered. A reflective learning style has serious implications on time and course organization.

In discussing Aboriginal learning styles, we must be careful not to stereotype students. Professor More (1993) talks about avoiding stereotyping of Aboriginal students and argues that it is important to note that the more traditional the community, the more likely these preferred and traditional ways of learning will appear. However, it would be detrimental to simply assume each student in a community will have traditional methods as a preferred learning style.

That is why having a keen understanding of a community with community members involved at every stage of course development is so important to any distance education programme. Aboriginal communities are not static and are undergoing changes at a tremendous rate. Within this change, new learning strengths we have not yet thought about will undoubtedly emerge.

Each person we interviewed for this book commented on learning styles. To understand the preferred communications method of students, Ted Green, Headwaters Education Centre in La Ronge, Saskatchewan, believes that educators need to understand how students interact socially. Ted also noted that to be successful, the programme must integrate into the community using local resources including Elders. Darren Potter at Keewaytinook Internet High School in Balmertown, Ontario, noted the reflective nature of his students. If delivery is asynchronous, internet delivery allows students time to reflect. Barry McLoughlin of WAHSA believes that their students are predominantly auditory and oral learners while Heritage College suggests that their visual model addresses the preferences witnessed in their students.

Whatever the reason, it is clear that all successful distance education models employ their own delivery practice to address various learning styles. It is also clear that delivery methods are only one element in a distance education programme and that instructional technique, lesson design and evaluation must be equally as creative in adapting to learning styles. As Bernie Sheehan of Aurora College indicated, each instructor must be creative since learning styles may not be obvious. Communities and education institutions need to find what works best in their communities.

Key Points of this Chapter

To assume that a student, because she or he is Aboriginal, has a specific learning style is wrong. Students in remote Aboriginal communities are no different than students in any other community. Individual students have learning strengths that are

created by their personality and their environments. Understanding Aboriginal culture, however, can be beneficial to recognise learning strengths and appropriate course administration.

Historically, Aboriginal students learned by watching and by listening to stories told by the elders. These students did not learn from a textbook while sitting in an artificial environment. All students learn best when interaction with others and relationships with the instructor and the other students are incorporated in the design and delivery of the course. By understanding Aboriginal culture and the history of learning, educators have a better chance of incorporating activities that respect the culture, while also recognising Aboriginal learning behaviours.

To understand learning styles, one must begin to understand the uniqueness of the individual learner. Acknowledging historical patterns of skill acquisition gives us examples of proven methods that work. Understanding where students derive their strengths from and the social, economic and cultural forces that guide students are the foundations of any learning style. The challenge for the educator is to reflect the individual strengths with the learning tasks, thus assuring educational success.

Chapter 5

BEST PRACTICES

In spite of the many challenges facing distance education in remote Aboriginal communities throughout Canada, a great deal of success has been achieved. Each of the programmes we visited had barriers to face, but the programmes were successful by incorporating strategies and procedures that supported success. By sharing these best practices with others, we hope to assist other remote Aboriginal communities and provide useful assistance to education institutions interested in developing and delivering successful distance education programmes.

On-Site Support

The most important and the most common best practice we observed was the availability of education support staff in the community. Each remote community we visited had an adult educator, teacher, distance education coordinator or another person in the community that motivated students and provided local administration of distance education courses and programmes. In each of the communities we visited throughout Canada, the on-site support staff played an integral role in the learning process and the support position was invaluable to student success.

The role of the support staff was varied and complicated. Each distance education coordinator, adult educator and teacher had to be dedicated to the students since his or her duties were complex and often required the person to provide support beyond traditional classroom times. In most cases, the credentials or experience of the on-site support person was not important. However, the commitment and dedication of the support staff to student success were essential.

From Deline to Buffalo Narrows to North Spirit Lake, each one of these dedicated individuals demonstrated responsibilities that are beyond any traditional job description. Located in a remote community, the on-site support person had to be all things to all students - tutor, instructor, mentor, role model, administrator, technician, social worker, truant officer - while also being able to make good coffee.

In addition to the on-site support person, instructors and administrative staff need to appreciate and be comfortable in remote Aboriginal communities. In many communities, a feeling exists that southern, urban educators do not understand life in a remote, northern community and that these educators rarely accommodate the culture and the environment in the curriculum or the delivery of distance education courses. The successful courses and programmes had strong ties between the education institution and the community with frequent visits conducted by institution instructors and staff.

In many cases, years of living and teaching in remote communities are needed to appreciate the learning environment to the point where appropriate curriculum and delivery methods are developed. It is therefore vital that educators without the experience in remote communities obtain the input of local staff and develop

strategies to incorporate local knowledge into course design and delivery while working towards the induction of Aboriginal instructors in course design and delivery. Empowering local staff in remote communities will lead to student successes that will ultimately result to a need for more instructors and additional innovative programmes.

The most successful distance education institutions researched for this book used instructors and staff who were either from the remote communities or who have worked in and understand remote Aboriginal communities. Many people believe they understand the issues and the environments faced by students in remote Aboriginal communities; but it is only by living and working closely with the people that this knowledge is truly gained.

Incorporation of Culture and Environment

Each of the distance education programmes we visited successfully included local culture and the socio-economic environment in the design and delivery of their programme. Supporting our research, evidence from international programmes such as the Remote Area Teacher Education Programme (RATEP) for Aboriginal students in northern Australia (Henderson and Putt, 1993) and distance education programmes in Papua New Guinea (Guy, 1991) confirm that incorporation of culture and the local environment is necessary to achieve success in the design and delivery of distance education programmes.

One of the goals of distance education is to increase access to education for students living in isolated areas. In many cases, the use of traditional, text-based correspondence material failed to achieve this goal. To

require an Aboriginal student to sit alone in a room and read a textbook written by a stranger in a language other than the student's own first language is creating a conflict between traditional learning methods and the need to apply non-Aboriginal methods of learning required to obtain the training and knowledge required to achieve employment in the non-Aboriginal world.

Text-based correspondence material did not eliminate but often sustained student isolation by limiting or removing the social contact with other students and the instructor. In effective distance education programmes, student isolation was reduced through the introduction of study centres, telephone contact between students and instructors, on-site support staff and other initiatives that linked the student to the instructor and the education institution. These links reduced the feeling of isolation and increased the chances of building relationships – thus respecting Aboriginal learning needs and supporting student success.

The culture of any society includes characteristics that define its special identity, its structure and its stability. The culture is also defined by its social values, myths, religious beliefs and decision-making processes. Recognising the different elements that comprise the local culture will assist the community and the educator in the preparation and delivery of culturally appropriate material using relevant technology. As noted earlier, completion of needs assessments prior to the selection of curriculum and technology will improve the chance that appropriate material is delivered using accessible technology.

Educators have to know who their students are. Many Aboriginal people view the world differently from non-Aboriginal people and an educator working in a cultural

environment other than his or her own must realise the different views to effectively provide learning opportunities to students. Through conversation with Elders and experts on colonisation, Dr. Leona Makokis, President of Blue Quills First Nations College and Diana Steinhauer, past Education Director for Saddle Lake First Nation, provided observations in Chart No. 1. The content examines the different values placed on learning and on existence between Aboriginal and non-Aboriginal cultures. The observations are not intended to criticize any group, but are recorded to promote discussion and increase understanding of Aboriginal culture.

As noted earlier and as witnessed in Aboriginal and other cultures throughout the world (Murphy, 1991), knowledge is traditionally acquired through experiential learning and through the stories and wisdom of the Elders. Learning in the Aboriginal community is traditionally obtained by observing, by listening and through the socialisation process. Learning is not traditionally obtained in an artificial environment, such as a classroom, through the introduction of written materials.

Many of the consequences of more than a century of colonization and assimilation policies are recognised with the long-term effect of residential schools now known and with the failure of the education “system” to meet the needs of Aboriginal students in remote communities evident. Successful educators working with remote Aboriginal communities recognise the cultural identity of the students as well as the history and effects of assimilation attempts. From this knowledge, educators must adapt the curriculum and the delivery to the students – not expect the students to adapt to the curriculum.

Chart 1	**Non-Aboriginal People**	**Aboriginal People**
Creation	World is chaos of physical, chemical processes. Origin unknown.	World is the creation of the Great Spirit and is ordered by his laws.
Man	A physical being evolved from "lower" forms of life. A bundle of material needs and desires.	A spiritual being. A unique creation descended from the Anishnabe.
Knowledge	Created by man alone. Proven in man's mastery over nature.	Man becomes knowledgeable by learning the ways of the plants and animals. Knowledge is proven in harmonious relationship with the earth and other creatures.
Happiness	Achieved by pursuing material gain and power in human relationships.	Achieved by pursuing a vision and accepting a society directed in that vision.
The Individual	The ultimate basis of society. Social relationships are formed and broken as the individual pursues his/her own interest.	A member of family, clan and totem. These social relations outlive the individual and provide the context for meaningful life.
Work	Labour to be sold for the highest possible wage or status.	An expression of self-worth in providing and caring for family, the little ones and old people.
Elders	Old people whose time for productive life is past.	The bearers of traditional wisdom. Teachers of the young.

Self-empowerment can be achieved and many of the barriers to education can be eliminated by the very development distance education promises to produce (Arger, 1987). Although access to distance education is improving, remote Aboriginal communities still do not have the distance education programmes needed. The assimilation approach of many of the larger, urban, non-Aboriginal education institutions continues through the sale of generic courses to Aboriginal learners. Only by self-empowerment will people in remote Aboriginal communities promote the needs of their students and thus witness the advantages of distance education.

The gap between the socio-economic "have" and the "have-not" communities continues to grow in Canada. Distance education can reduce this gap by overcoming social, economic and political problems faced by people in remote Aboriginal communities. Distance education can also assist in limiting the movement of youth to large, urban centres; reduce the number of trained people who do not return to their community; and eliminate the dependence on outside educators and "southern" curriculum and delivery methods. And, although distance education has the ability to reduce this gap, to date it has failed to do so.

Witnessed by the success of innovative delivery institutions, the framework within which distance education operates is becoming more appropriate to the needs of remote Aboriginal students and their communities. As such, the gap between the potential and actual impact of distance education is being reduced. Distance education has the ability to provide equal opportunity for access to education; to provide alternative paths for the disadvantaged and the disenfranchised; to provide a second chance for education for adults who missed out on education in

their formative years and to encourage life-long learning (Rumble, 1989). The few who attempt to incorporate culture and the local environment in distance education will be rewarded with successes.

We have known for almost 40 years what is needed to improve a student's access to education. Certain prerequisites must be present for distance education programmes to be successful (Edstrom, 1966). These prerequisites can be related to distance education in remote Aboriginal communities the by recognising the following:

- Good Mass Communication: Although improving, communication is still an issue in some remote Aboriginal communities where many students still do not have reliable access to technology and where the mail service is often irregular.

- Good Home Environment: Many students in remote Aboriginal communities lack the support of their spouses or families and do not have access to a quiet study space. The social problems facing many people in remote communities also impact the quality of their learning.

- Language Fluency: Although English is the first language for many Aboriginal students, others have their native language as their first language. Fluency and comprehension of English can be a challenge for these students. In addition, many schools in remote communities offer classes only to the Grade 9 level. Rather than leave their communities, many students quit school at this point thus limiting their English language skills.

- Skilled Course Writers: Most academic courses are written by professionals in urban institutions who have few experiences and little knowledge of cultural and environmental contexts in northern and remote Aboriginal communities. Due to a variety of reasons, including financial and the lack of technical proficiency, many courses destined for Aboriginal students are generic versions shared with existing, urban students.

- Printing Capabilities: Not as important an issue as it was 40 years ago although apart from photocopiers, large-scale printing facilities do not exist in remote communities. As a result, publishing and printing of course material must occur in southern institutions.

- Recognition of Distance Education as Legitimate: The success rate for traditional, text-based correspondence distance delivery courses is low in remote Aboriginal communities. Consequently, there is fear and apprehension of distance education and a perceived lack of legitimacy. This perception must be changed to allow the full, positive effects of distance education in remote Aboriginal communities.

- Geared to Specific Rather than Long-term Goals: Distance education remains focused on social and economic development of the communities and is not always aimed at specific, student goals. Distance education courses for remote Aboriginal communities must be practical and lead to employment-related student benefits.

Successful distance education courses in remote Aboriginal communities have recognised the challenges and have incorporated strategies to minimize the impact of these obstacles. Through recognition and incorporation of culture and the local socio-economic environment into the curriculum and the course delivery, successful programmes have supported student success.

Prompt Feedback

Two types of timely feedback are necessary for the success of distance education courses. Course feedback provides information on curriculum and delivery outcomes and reviews details of what is working and what is not. Student feedback provides answers to student questions and timely, detailed responses to student assignments and tests. Both types of feedback are essential to the success of distance education programmes in remote Aboriginal communities.

Derek Rowntree (1995), Professor of Educational Development at the Open University, argues that feedback regarding the acceptability and effectiveness of course materials could be the most crucial task of distance education planning. The evaluation of any distance education course will ultimately lead to programme improvement and will also provide an effective marketing tool for offering the programme in other communities. Formative evaluation, assessments that occur during the course, should take place regularly and will assist in overcoming the existing faults while the course is still being delivered, rather than waiting until the course is over and the students have finished. Summative evaluation, assessments that occur at the end of the course or programme, should be more thorough and should be used to improve the next course offering.

In addition to the course evaluation, feedback to students must be prompt, relevant and comprehensive. The distance education students we interviewed indicated that the comments provided by the instructor on assignments and exams were often more important than the marks themselves. The comments provided feedback that allowed the students to learn from their work rather than just receiving grades with no explanations and no comments on which to base future assignments or to prepare for future examinations.

It was also interesting to note that the speed with which the comments and grades were returned was also essential. In many remote communities we visited, the distance education students completed three or four assignments before instructor feedback was received on the first assignment. As such, students did not know if they were accurately understanding the material and progressing appropriately.

Without daily personal contact with the students, distance education instructors should promptly comment on the students' work. With current technology there is no excuse for delayed feedback. Using email, fax or telephone, an instructor can provide timely feedback before the comments are returned by mail. Communities and education institutions need to ensure the technology and instructor availability is present to provide timely responses to student requests and assignments.

Building Relationships with Students

Consideration of the culture and history of communities and knowing the students is essential for distance education course success. As indicated, relationships are a strong component of Aboriginal culture. Contact

between the instructor and the student, especially face-to-face or through the use of technology, allows students the opportunity to build a relationship with a person – something difficult to build with a computer monitor!

There are many ways to build personal relationships within courses. One means is to have the instructor and institution staff visit the students in person prior to or during course delivery to establish relationships. Although effective, this approach can be very expensive based on the geographic separation of instructors and students. Another approach is to have the instructor provide autobiographical information to the students.

Distance Education research completed by Rouse (1986) and Haag (1990) confirmed that distance students believed a biography of the instructor or tutor should be included in the pre-course material. Many students indicated that their previous experience was in a face-to-face classroom setting, and student apprehension of distance education was in part due to the lack of physical contact with the instructor. The students indicated that knowing more about their instructor at the earliest point of the course or before the course began led to a greater level of satisfaction. To ensure greater success in their studies, students argued that knowing the instructor made them feel more comfortable.

For the past 25 years, academics have disputed whether distance education instructors should provide students with a broad perspective of personal material (Gibbs and Durbridge, 1976). Ultimately, the instructor must be able to establish a relationship with the student in a manner that is comfortable for the instructor and the student. We believe that, although aspects of the instructor's professional experiences are important, distance education students in remote Aboriginal

communities want to know non-professional things about the instructor. Aboriginal students want to know who the instructor is – rather than what the instructor knows.

A relationship will not be formed between the student and the instructor through one video message, written autobiography or conversation. Building this relationship with students in remote Aboriginal communities is complicated and will take time to develop. Ensuring consistency in instructional and support staff will confirm the relationship between the community and the institution is developed and maintained.

Tom Wall, a teacher for Tsleil-Waututh Nation in North Vancouver, British Columbia, believes that building a relationship with students is essential but also a challenge as the process can take months to realize. He has found that his students will continually test the relationship to confirm commitment. If the teacher recognises the testing is going to occur and maintains his or her commitment to the student and to the community, the instructor and institution staff will be rewarded with endless student enthusiasm and success.

For political, educational and financial reasons, building collaborative relationships between the community and the delivery institution is essential. The resources available in remote Aboriginal communities are scarce and access to the knowledge and resources of the larger, urban institutions ensures transferability of courses and continued relevance of curriculum. What must be considered in establishing collaboration are the cultural differences of the institutions themselves and the challenge of accommodating the community and education institution cultures.

Through the development of personal relationships with the communities, the educator can gain the personal trust and better understand the culture and values that are vital to ensure an effective partnership (Moran and Mugridge, 1993). Examples from our research are extensive and one only needs to look at the relationship that exists between the College of New Caledonia and Kwadacha Nation; or that of Heritage College and remote communities in northern Quebec; or the relationship between Chinook College and distance students in the Northwest Territories to embrace the concept. An education institution that fails to establish and maintain these relationships will have a short-lived experience delivering distance education courses to students in remote Aboriginal communities.

Flexible Delivery

Another key to the successful delivery of distance education programmes in remote Aboriginal communities is to allow for flexibility in the curriculum design and course delivery. In situations where students are given some flexibility with assignment dates and topic selection, students will be more successful.

Flexibility allows for the changing environmental, cultural and social dynamics of the communities and the students. For example, in many Aboriginal communities a death results in a wake that can last for days. The timing of annual hunting, trapping and fishing trips does not always reflect the school calendar. For other communities, the need for political and/or social activities often takes priority over school courses. These activities can be of great importance to the student and community, and family pressure on the student to participate can be great. Failure to allow for these activities will reduce student enrolment and success.

The delivery of courses must reflect these factors and be able to accommodate flexibility in its delivery. In Kwadacha Nation, the course schedule is built around known cultural, vacation and hunting dates rather than adhering to the traditional September, January and May course start dates. Keewaytinook Internet High School in northwestern Ontario includes extra weeks to each course delivery to accommodate these and unexpected community and personal events.

Dates and times of assignments and exams are not the only variables that must be flexible. Education institutions must recognise that remote Aboriginal communities are different and allow flexibility in other aspects of course design and delivery; such as, on-site tutor qualifications and course prerequisites. To encourage success, education institutions must be open to accepting new delivery methods, support creative means of building relationships, allow creativity in assignment design and ease restrictions on the transferability of credits. Although the education institution must ensure that the quality of the curriculum remains, there are many features that can be flexible without losing credibility or recognition.

Access to Reliable Technology

Access to relevant, reliable technology is essential for student success in distance education courses. Providing internet courses to students who do not have easy access to a telephone, let alone a personal computer and internet connection, will obviously result in low levels of success. If courses are delivered by internet and the student does not have access to the internet for weeks due to unreliable connections, the student will become frustrated and either fail or quit unless some intervention from the instructor or the institution occurs.

A variety of technologies have been successfully used in distance education programmes in remote Aboriginal communities across Canada including the internet, radio, telephone and text-based correspondence materials. Each delivery method can be successful if utilized properly and if the method is easily and reliably accessible by the students. The community must assess its access to technology and ensure the delivery is made available to the widest audience possible.

The technologies chosen by the delivery sites we visited reflected the best option for their respective communities. Each of the successful sites also has technology support built in. Whether the Adult educators in Tulita or Fort Severn become the technology experts in the community or whether the computer experts in Inuvik or Sioux Lookout are easily available to both students and institution staff, each delivery institution must build in technology support for students, staff and communities for the courses to be successful.

Ensuring Students Feel Part of the School

Remote students need to feel part of the delivery institution. This feeling allows students to consider themselves "regular" college or high school students and can have an effect not only with the students but also on the entire community. If a student in a remote community considers themselves a college student, he or she will act like one and will take pride in their work. Reflecting the self-confidence and pride shown by the distance education students, children in the community will benefit by applying this pride to their own school work. Youth in the community will also realise that their auntie, uncle, mother, or father is a college student

and will recognise that there is an education opportunity for them other than dropping out of school at Grade 9!

Making a student feel like part of the institution is actually quite easy. Students will consider themselves part of the college, university or school if the institution provides casual, supportive telephone calls to the students. The institution can also provide student identification cards, schedule recognition events, write newsletters and ensure students have regular contact with institution staff.

Prior to the recent elimination of First Nations support staff, British Columbia Open University printed a newsletter with stories from the different First Nations Learning Centres throughout the province. The newsletters made students and staff in remote communities consider themselves as part of the broader university community. The College of New Caledonia regularly has administrative and instructional staff visit the remote communities to establish and maintain relationships with the students and administrators. Although this activity involves long drives on logging roads or expensive flights, the effort ensures students in these communities are considered part of the institution and have access to the same support services as students on campus.

Government Support

Provincial, federal and local governments must be made aware of the long-term benefits of distance education delivery for remote Aboriginal communities. Governments must recognise how distance education can be part of the solution to defeat the socio-economic challenges facing many communities. Where

government support is evident, the distance education programmes have a better chance of success.

Most of the successful sites we visited have strong government cooperation. Industry Canada has provided funding for innovative projects in many provinces. The government of Saskatchewan has provided support for distance education through the SCN broadcast system. The government of the Northwest Territories ensures each community has an adult educator on site and has provided access to upgrading courses and strategically placed college campuses in virtually all communities. The Ontario Ministry of Education has granted KIHS the rights to offer high school courses by internet delivery while watching the programme closely to ensure consistency and quality is maintained. In all cases, the local community, band or settlement leaders have provided their irrefutable support for education. With this support the opportunities for students increase.

Key Points of this Chapter

In spite of the barriers facing distance education programmes across Canada, a number of communities, education institutions and governments have combined resources to develop innovative, relevant distance education courses that meet the needs of students. As with barriers to distance education, the best practices reflect those procedures that are both local in nature and those that can be applied nationally. However, the best practices presented in this chapter will assist anyone interested in the development and delivery of similar programmes by determining what features should be incorporated in distance education programmes to ensure success.

Through our own personal experiences and the observations made by students, staff and administrators in the communities we visited, a number of procedures that can enhance the probability of success were presented. The best practices of distance education in remote Aboriginal communities include:

- On-Site Support: The most significant best practice is to provide on-site support staff in the communities. Distance education coordinators, adult educators or teachers in the communities must assume a number of roles to motivate and support distance education students while monitoring the personal, social, cultural and political environment of the communities served. Programmes where on-site support staff are present are more successful than courses in communities without a support person designated to assist local students.

- Incorporation of Culture and Environment: Curriculum and delivery methods must respect and reflect the culture and environment of the students the course is designed to assist. Curriculum designers and course instructors need to know who the potential and actual students are and attempt to understand the environment in which the students live. Curriculum and delivery must also be flexible to allow for differences among numerous communities. Local Elders and resource people should be involved in all stages of course design and delivery.

- Prompt Feedback: Distance education courses need to undergo formative and summative evaluations to ensure the courses and programmes meet the needs of the students.

Students also need to have easy and regular access to their instructors and the institution. Prompt, comprehensive feedback to assignments, questions and exam results from instructors ensures students have understood the concepts before progressing in the course.

- Building Relationships with Students: Students need to know who their instructor is and who else is in the course. This knowledge aids in the building of relationships between students and their teachers - an essential learning component in Aboriginal culture. Students also need to build relationships with other students in their class and the delivery institution. To open the relationship building experience instructors should meet the students in person or by some other means of communication before the course starts. The building of relationships can take time. As such, institutions are encouraged to maintain consistency with administrative staff and instructors to support the relationship building process.

- Flexible Delivery: Course delivery must reflect the dynamics of remote Aboriginal communities. The delivery method, due dates for assignments and exams, topics and other course features need to be flexible to meet the social, cultural, political, and employment realities of students in remote communities.

- Access to Reliable Technology: The technology chosen for course delivery must be available to all potential and actual students. The technology chosen must also be reliable. Prior to the start of the course, educators must research potential

students and communities to determine what technology will be most accessible and reliable. If students struggle with the operation of the technology or do not have reliable access, the newest technology is not necessarily the best.

- Ensuring Students Feel Part of the School: Students are more likely to be successful if considered part of the delivery institution. The impression also has an impact on the entire community as children witness the positive impact of the older students' learning and reflect this self-assurance in their own studies. Youth also recognise that educational opportunities exist after Grade 9 without having to leave the community. Distance education students should receive student ID cards from the education institution, be made aware of and be eligible for institution bursaries and receive regular information on the institution and other students.

- Government Support: Government support encourages innovation and success. With band, provincial and federal government support, whether financial or other, communities and education institutions are encouraged to provide the commitment needed to ensure the proper design and delivery of distance education courses.

Each institution we visited developed best practices that ensured students obtained distance education courses that were properly designed and delivered using relevant, accessible technology. Our hope is that other people across Canada will use these practices to improve the opportunities for all students in all communities.

Chapter 6

SUMMARY

Aboriginal people across Canada want control of their destiny. First Nations, Metis and Inuit people want to direct their own future and deserve distance education courses and programmes that will benefit Aboriginal students and their communities.

The cultural, social, political and economic challenges in remote Aboriginal communities today are little different from those facing most other communities. However, the culture, history and environment of remote Aboriginal communities are unique. The socio-economic challenges facing learning in remote communities are immense while the solutions to these challenges are few, slow to implement and are often short-sighted. Distance education for remote Aboriginal communities can be part of the solution.

To implement a successful distance education programme in a remote Aboriginal community, educators need to research student needs to determine who the potential students are and to understand the student's environment. Educators must also research the access to and the reliability of different types of technology. An important role of this research is to examine the local barriers confronting the development and delivery of courses. The learning environment of the

students must be understood, and examining the best practices of other distance delivery models will ensure new programmes are properly prepared and will offer the best service to students.

The first step in implementing a new programme is to determine the programme's barriers to success. These barriers can be common among all communities or institutions or the barrier may be unique to each situation based on the socio-economic, geographic, political and other variables of the education institution, the students and/or the community. To determine the barriers faced by distance education in remote Aboriginal communities across Canada, we examined successful and failed ventures and interviewed students, administrators, staff and community members.

The barriers (or challenges as Margaret Fiddler calls them) we encountered to successful distance education programmes were many and none should be underestimated. Common barriers included the deficient support for distance education by local, federal and provincial governments and the corresponding lack of funding for innovative education programmes. Political barriers also include the imposition of bureaucratic structures that reduce effectiveness and frustrate students and educators. Curriculum and delivery models were also a challenge as most curriculum and delivery designers are from the south and do not recognise or support the adaptation of courses to students living in remote communities. Although improving, distance education is still faced with the challenge of being perceived by some students, funders and communities as a poor alternative to traditional face-to-face education.

Another challenge facing the successful implementation of distance education programmes is the lack of student

access to reliable and appropriate technology. The newest technology is not always the best tool if students in remote communities do not have reliable access to it. Student independence was also a barrier as the perfect mix of structure versus independence appropriate for Aboriginal learners is difficult to balance and is not always achieved. Although many others undoubtedly exist, the final challenge we examined was the perceived higher cost of distance education.

Once barriers to the successful implementation of distance education programmes are reviewed and solutions are developed to overcome the challenges, it becomes apparent that the learning environment of students must be examined. Educators must know who their students are and what environment the student lives in.

Examining learning styles of Aboriginal students became a contentious issue. Many people in the field believe that Aboriginal students are visual or auditory learners based solely on the student's culture. We contend that Aboriginal students are no different than students of any culture or background and reflect a variety of learning styles based on the individual student's unique environment and personality. One Aboriginal student may be a visual learner while in the same community another student's learning strength is auditory. Consequently, educators and those designing and delivering distance education courses must allow flexibility in their strategy and accommodate students of all learning styles.

Canada is home to a number of innovative distance education programmes designed for and delivered in remote Aboriginal communities. Each of the programmes has confronted existing barriers,

acknowledged learning styles of their students, and has implemented practices to encourage student success.

The most important practice to encourage student success is to make available on-site support staff to motivate, monitor and assist students. The communities that have distance education coordinators, adult educators or teachers on site achieve greater student success. The on-site support staff are a dedicated group of people who provide a wide range of services for distance education students; including, assistance with course selection, ensuring student access to technology, monitoring the completion of assignments, invigilating examinations, motivating students and observing the social, economic and political climate of the community to determine education needs.

The incorporation of culture and the environment experienced by students in remote Aboriginal communities in the curriculum and delivery of courses is also essential for student success. Recognising the qualities of the culture and ensuring the curriculum incorporates the use of Elders, includes the opportunity to build relationships and respects the traditions and beliefs of Aboriginal students will encourage student success. Also, prompt feedback to questions, assignments and exams is a best practice evident in the successful delivery institutions. The feedback must be timely and also needs to be comprehensive.

To respect Aboriginal learning values, instructors and institutions need to build relationships with the students and provide the opportunity for students to build relationships with other students in the class. Relationships can be built through personal visits and the inclusion of instructor biographies in pre-course materials. Another best practice is the need for

flexibility of distance education course delivery. Although certain structure in course delivery is needed for Aboriginal students, allowing flexibility for the social, economic and cultural activities of students is also important. Access to reliable technology is an essential practice; and the technology chosen, whether radio, internet or text-based correspondence, must be accessible to all students.

Students want to feel part of the education institution and benefit by having access to the same institution services as their counterparts who attend class on campus. Providing institution identification cards to distance education students and providing online or written publications are beneficial. The final best practice we examined was the incorporation of government support. This support, whether from local, provincial or the federal government, is necessary to encourage innovative distance education programme delivery in remote Aboriginal communities.

Learning is an opportunity to improve the long-term economic and social growth of an individual and his or her community. The positive impact of distance learning is not, by itself, the solution to all the social issues in remote Aboriginal communities; however, distance education can be an integral tool in the social growth of these communities.

While accessing valuable learning opportunities, distance learning allows people to remain in their home communities and maintain close contact with families, support networks and retain employment. This approach has an untold positive impact on the remote communities as these students then become role models for younger generations. Students are also able to immediately apply their learning in the community thus

increasing the social and economic impact of learning on the entire community. Consequently, the self-esteem and independence of the community grows while youth have access to options that they would not otherwise have.

Through proper research and effective strategies to determine and overcome the challenges to successful distance education programmes and the implementation of best practices, distance education will provide appropriate education opportunities to students in remote Aboriginal communities. If designed and delivered well, distance education can, and will, have a positive impact on the social, political and economic future of our first peoples.

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Bill McMullen BA, BA (Hon), AGDDE (T), MDE is Coordinator, Curriculum Development for the Northern Alberta Institute of Technology (NAIT) in Edmonton, Alberta. Previous positions were as Project Planner for the Mackenzie Campus of the College of New Caledonia in northern British Columbia and Director of Research and Planning for Blue Quills First Nations College in northeast Alberta. He has been working with Aboriginal people in remote communities since 1992 administering the design and delivery of a wide variety of post secondary education courses.

Andreas Rohrbach BA, MA, GDEd is Education Director for Kwadacha Nation and Principal of Aatse Davie School in Fort Ware, BC – one of the most remote communities in the province. Previously, he was a teacher at Maquatua Eeyou School in Wemindji, Quebec. Andreas has dedicated the past decade to enhancing education opportunities in remote Aboriginal communities in northern Quebec and northern British Columbia.

Back Cover

Students living in remote Aboriginal communities can benefit from distance education – yet distance education has often failed to live up to its potential and has failed students.

Through the examination of existing distance education ventures in remote Aboriginal communities across Canada, this book examines the real and perceived barriers facing those wanting to establish distance education programmes. The book also examines learning styles of Aboriginal students in remote communities and will explore the best practices of existing programmes.

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