

A blended approach to Canadian First Nations education: The Sunchild e-learning community

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The purpose of this research study was to investigate if and how a blended approach to Canadian First Nations education could be used to foster student engagement and success. The study examined the Sunchild E-Learning Community program through the lens of the *Seven Principles of Effective Teaching* (Chickering & Gamson, 1999). Data was collected via an online survey, interviews, and site visits. The study participants indicated that the deliberate and intentional integration of mentors at local learning centers with online teachers, who provide synchronous tutorials through the use of a web-based learning management system and conferencing tool, was the key to academic success.

Keywords: blended learning, First Nations education

Introduction

The Sunchild First Nation Reserve (40) is located in the western central part of Alberta, Canada. The reserve has an area of 52.18 square km. As of 2008, the First Nation had a registered population of 1209 people, of whom 732 live on their reserve (Government of Canada, 2008).

In 1999, members of the Sunchild First Nation considered the lack of education in their community and decided alternative methods were needed to reach First Nations students. They discovered that:

- First Nations students faced unique challenges including family and legal situations, time away from class and relocating to new homes.
- Many First Nations students were adults. These students wanted to upgrade and build a better future while meeting their current schedules and responsibilities (Sunchild E-Learning Community, 2012).

In order to address these challenges the Sunchild E-Learning Community Program was established. This program adopted a blended learning approach for high school courses by combining the use of mentors at local learning centers with online teachers who provide synchronous tutorials through the use of a web-based learning management system and conferencing tool.

The purpose of this research study was to investigate if and how this blended approach to Canadian First Nations education could be used to foster student engagement and success. All students enrolled in the Sunchild E-Learning Community were invited to complete an anonymous online survey in the fall 2011 semester. Online follow-up interviews were conducted with students in the winter 2012 semester as well as online interviews with learning centre mentors, online teachers, and administrators involved in the program. In addition, site visits to learning centers were undertaken. The following three questions were used to guide this study:

1. What are the advantages of a blended approach to Canadian First Nations education?
2. What are the challenges?
3. Recommendations for improving this approach to Canadian First Nations education?

Blended learning

The idea of blending different learning experiences has been in existence ever since humans started thinking about teaching (Williams, 2003). What has recently brought this term into the limelight is the infusion of web-based technologies into the learning and teaching process (Allen & Seaman, 2010; Clark, 2003). These technologies have created new opportunities for students to interact with their peers, teachers, and content.

Blended learning is often defined as the combination of face-to-face and online learning (Sharpe et al., 2006; Williams, 2002). Ron Bleed, the former Vice Chancellor of Information Technologies at Maricopa College, argues that this is not a sufficient definition for blended learning as it simply implies “bolting” technology onto a traditional course, using technology as an add-on to teach a difficult concept or adding supplemental

information. He suggests that instead, blended learning should be viewed as an opportunity to redesign the way that courses are developed, scheduled, and delivered through a combination of physical and virtual instruction, “bricks and clicks” (Bleed, 2001). The goal of this redesigned approach to education should be to join the best features of in-class teaching with the best features of online learning to promote active, self-directed learning opportunities for students with added flexibility (Garnham & Kaleta, 2002; Littlejohn & Pegler, 2007; Norberg, Dziuban, Moskol, 2011). This sentiment is echoed by Garrison and Vaughan (2008) who state that “blended learning is the organic integration of thoughtfully selected and complementary face-to-face and online approaches and technologies” (p.148). A survey of e-learning activity by Arabasz, Boggs & Baker (2003) found that 80 percent of all higher education institutions and 93 percent of doctoral institutions offer hybrid or blended learning courses (Figure 1).

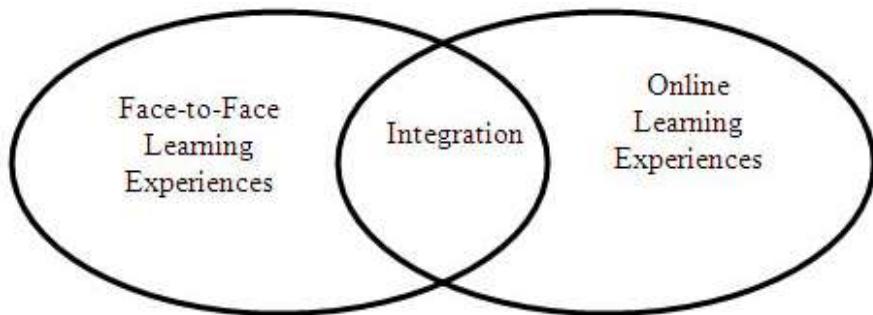


Figure 1: Campus-based blended learning approach

Campus-based environments have their roots in educational systems where classes have been delivered by teachers in synchronous class lecture settings. Initially, blended learning has been used to complement these synchronous lectures through the use of asynchronous discussion forums and learning management systems such as *Blackboard* and *Moodle*. With the advent of synchronous tools, such as *Blackboard Collaborate* and *Adobe Connect*, opportunities have been created to provide students with both synchronous and asynchronous communication possibilities.

Power (2008) has coined the term Online Blended Learning to describe the simultaneous and complimentary integration and implementation of an asynchronous-mode learning environment (i.e. a course management system, or CMS) and a synchronous desktop conferencing environment (i.e. virtual classroom). The Sunchild E-Learning Community framework has further expanded this conception of blended learning by fully integrating face-to-face and online synchronous and asynchronous learning opportunities for their students through the use of mentors at local learning centres and highly qualified online teachers (Figure 2).

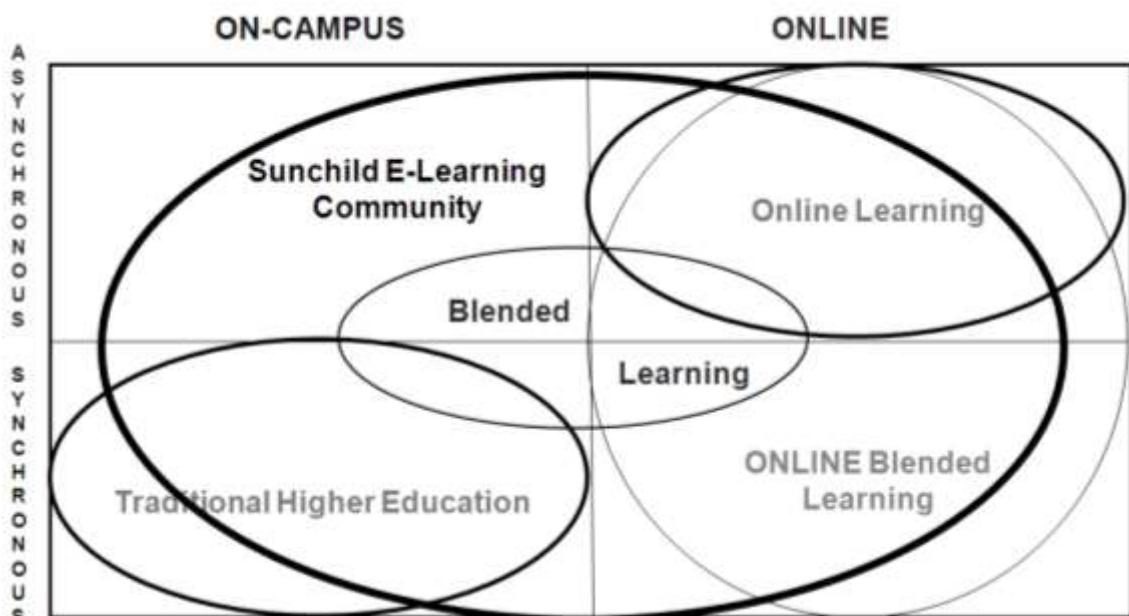


Figure 2: Sunchild e-learning community program framework

Methods of investigation

An action research (Stringer, 1999) and case-based method (Creswell, 1997) were utilized for this study. Gilmore, Krantz and Ramirez (1986) define such a framework as:

Action research . . . aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process.

(p.161)

This approach consisted of a mixture of quantitative and qualitative data collection methods. All students enrolled in the Sunchild E-Learning Community program were invited to complete an online survey in the fall 2011 semester and then follow-up online interviews were conducted in December 2011 with four of the students who completed this survey. In the winter 2012 semester, these online interviews were expanded to include seven mentors, two online teachers, and the principal of the program. Two site visits were also conducted (Chinki Adult Education Center and the Calgary Aboriginal Futures Center).

The educational research literature strongly suggests that student engagement is the key to academic success and retention (Astin, 1999; Kuh, 2008; Pace, 1980; Pascarella & Terenzini, 2005). The National Survey of Student Engagement (NSSE) defines student engagement as the amount of time and effort that students put into their academic studies that lead to experiences and outcomes that constitute student success, and the ways that programs allocate resources and organize learning opportunities and services to induce students to participate in and benefit from such activities (NSSE, 2011). The NSSE is constructed on the Seven Principles of Effective Teaching (Chickering & Gamson, 1999):

1. encourages contact between students and teachers,
2. develops reciprocity and cooperation among students,
3. encourages active learning,
4. gives prompt feedback,
5. emphasizes time on task,
6. communicates high expectations, and
7. respects diverse talents and ways of learning

These seven principles are based on over fifty years of educational research (Graham et al., 2001) and they were used to guide the data collection and analysis for this study.

Findings

This section begins with a demographic profile of the student participants followed by a summary of the results for each of the three research questions based on the seven principles of effective teaching framework:

1. What are the advantages of a blended approach to Canadian First Nations education?
2. What are the challenges?
3. Recommendations for improving this approach to Canadian First Nations education?

Demographic and technology profile of student participants

There were three hundred and eight students enrolled in the Sunchild E-Learning Community in the fall 2011 semester. In order to establish a context for the study findings, the initial online survey asked a series of demographic questions (n=24, 8% response rate). Table 1 compares the demographics of students in the Sunchild E-Learning Community to students at a university in Calgary, Alberta who had recently completed a similar survey (Vaughan et al., 2011). The purpose of this comparison is to demonstrate the demographic similarities and differences of students enrolled in the rural Sunchild E-Learning Community program to those attending an urban university.

Table 1: Student comparison of Sunchild e-learning community and Mount Royal University

Student Item	Sunchild E-Learning Community	Mount Royal University
<i>Gender</i>		
Female	68%	55%
Male	32%	45%
<i>Age</i>		
Under age of 24	54%	89%
Over age of 24	46%	11%
<i>Place of Residence</i>		
Living with parents	46%	62%
Living with own family with children	42%	0%
Living alone	0%	10%
Living with roommates or partner with no children	13%	23%
University residence	0%	5%
<i>Employment Status</i>		
Currently not working	83%	23%
Currently working part-time	16%	65%
Currently working full-time	0%	23%

Two-thirds of Sunchild E-Learning Community students were female and one-third were male. The students surveyed ranged in age from 18 to over 41. There appeared to be a bi-modal age distribution with two-thirds of the students between the ages of 15 to 27 and one-third between the ages of 31 to 41 plus. In terms of place of residence, 46% of the students lived with their parents, 42% lived with their own family with children, and 12% lived with roommates or partner with no children. With regards to employment status, 83% of the students were currently not working compared to only 23% of the Mount Royal students (the remainder had either a part or full-time job).

A similar comparison was made between Sunchild E-Learning Community and Mount Royal University students with regards to access to technology and self-reported skills (Table 2).

Table 2: Comparison of technology access and skills between Sunchild e-learning community and Mount Royal University students

Technology Item	Sunchild E-Learning Community	Mount Royal University
Home access to the Internet	37%	100%
Access to high-speed home Internet connection	33%	98%
Have your own a mobile communication device (e.g., cell phone)	62%	90%
Have your own laptop computer	38%	89%
Have your own a mobile communication device with Internet access (e.g., Smart Phone)	29%	82%
<i>Personal Rating of Computer Skills</i>		
Novice (not really comfortable using computers)	0%	5%
Intermediate (comfortable using computers)	70%	59%
Advanced (have developed some expertise and enjoy using a computer)	30%	36%

In terms of technology access, only 37% of the Sunchild E-Learning Community students surveyed had home internet access. Two-thirds of the students had a mobile communication device (e.g., cell phone, Blackberry, iPhone), 38% had their own laptop, and 33% had access to a desktop or laptop computer at home that they share with others. Despite this lack of home and personal access to computer technologies, through participation in the Sunchild program, 70% percent of the students rated themselves as intermediate with regards to their computer skills while 30% rated themselves as experts.

Seven principles of effective teaching practice framework

Principle 1: Good Practice Encourages Student-Teacher Interaction

Frequent student-teacher contact in and out of class is one of the most important factors in student motivation and involvement (Light, 2001). Teacher concern helps students get through rough times and keep on working. Knowing a few teachers well enhances students' intellectual commitment and encourages them to think about their own values and plans (Chickering & Gamson, 1999). The Sunchild E-Learning Community is designed so that students have optimal contact with mentors at the learning centers and the online teachers through synchronous and asynchronous communication systems (Figure 3).



Figure 3: Student and mentor at the Chiniki adult learning center

Mentors

Students interviewed indicated that there is an opportunity to interact with the mentors on a daily basis that helps form a relationship and a bond over time. The mentors commented on how they know what is happening in the student's school and family life and how they gently nudge students forward through encouragement and help. The online teachers stressed that an active mentor is the key to the success of the program. The more active the mentor, the more students they draw to the site and the more they retain their students – the key to academic success.

Online Teachers

The students indicated that the one-to-one interaction in the online tutorials and personal emails from the online teachers really helped them succeed. One student also commented that "I get along with my online teachers because they don't know me, my reputation, and how I've been in the past, how I acted out in high school that gave me a really bad reputations" (Student 2). The mentors stated that Sunchild has "amazing online teachers – they really know their stuff and they are very encouraging with the students" (Mentor 5). The online teachers stressed that "we are here for the students – we are a face on the screen, a voice in the headset – more than just an email message" (Online Teacher 1). And, that "synchronous online communication is the key to establishing relationships with students – without this component it would just be a glorified correspondence program" (Online Teacher 2).

Integration

The students emphasized how important it was for them to integrate both the mentor and online teacher support. For example, "I learn new ideas and concepts in the online tutorials and then I practice them with the mentors help in the classroom" (Student 4). It's "almost like having two teachers for all of my courses" (Student 2). "Pretty well like having a teacher right beside you all the time" (Student 3).

Several of the mentors also commented on the integration of teaching support, "I can listen to the online teacher and then explain the concepts to the students" (Mentor 7). "Having both a face-to-face mentor and online teachers is important to balance student support and perspectives about learning" (Mentor 4). "Students are motivated and encouraged by both the online teachers and mentor to succeed" (Mentor 2).

Mentor - Challenges and Recommendations

The students identified mentors potential lack of educational experience and sometimes not a positive relationship with all students as a couple of challenges. The online teachers also indicated that some mentors are quite hands-off with their students and quite hands-off with the online teachers, which can lead to communication and student progress challenges.

Several students recommended having more than one mentor at each centre so that you can find someone whose personality you can relate to. The online teachers suggested that the mentors receive training and become more active in counselling students about appropriate courses. For example, having students complete basic literacy and numeracy pre-requisite modules before attempting high school level courses.

Online teacher – Challenges and Recommendations

The only challenge identified by students is that sometimes they feel like they have to wait a long time to have their questions to the online teachers answered by email despite the fact that there is a 24 hour response policy in place (except for weekends).

Both online teachers interviewed emphasized that workload was a serious issue. They indicated that to do a good job teaching online you cannot do it full time. “What has happened to some people is that they have actually burned out” (Online Teacher 2).

One of the mentors suggested having online teachers come to each of the sites to meet their students a couple of times each year, “putting an actual face to a name” (Mentor 6). And, the recommendation was made to hire more online teachers and lighten their teaching load.

Principle 2: Good Practice Develops Reciprocity and Cooperation among Students

Learning is enhanced when it is more like a team effort than a solo race (Chickering & Ehrmann, 1996). Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one’s ideas and responding to others’ improves thinking and deepens understanding. This Sunchild E-Learning Community intentionally emphasizes cooperation and community for everyone involved in the program – students, parents, mentors, online teachers, principal, and administrative staff.

Students

The program and the learning centers are designed to create a cooperative environment for the students. For example, students are able to interact and work with other students while they are at the center. In addition, “they get to participate in real online sessions with other students their age from other reserves. Not with younger students so they feel more comfortable with their learning” (Mentor 1).

The mentors also work hard to provide a sense of community and belonging at the learning centers. “I do lunches with my students so that it becomes more of a community. We do it for special holidays and at the end of each semester. This keeps the students engaged and makes them feel like they are part of something” (Mentor 2). At another center, “we’ve got a lunch area and a pool table in the basement of our center where students can relax and socialize” (Mentor 3). And, “we’re not in the main school so the students feel like they are not going to the regular high school. The students are older and this building feels more like their place – not a traditional school with younger children” (Mentor 5). At the Chimiki Center, “they actually have their own Students Council – so there is some form of community and opportunity to socialize” (Mentor 3).

Mentors and Online Teachers

Both the mentors and online teachers interviewed commented on how they work hard to cooperate and create a community amongst themselves. One online teacher indicated that “the proactive mentors are constantly emailing me with questions – they are really involved with their students – you get to know these mentors and you have a great relationship with them (Online Teacher 2). In addition, “all the mentors and online teachers have Skype so that we can have instant conversations rather than waiting for email” (Mentor 6). One mentor has constructed” a bulletin board at our site that introduces the online teachers and the subjects they teach” (Mentor 4).

Principal

All of the mentors and online teachers were unanimous in their praise for the tremendous support and mentoring provided by the Principal of the Sunchild E-Learning Community. She works very hard to establish a sense of community for the program by always being available for help and coordinating monthly online team meetings

with all the mentors and online teachers. Currently, the team is reading and discussing the *Blended Learning in Higher Education* book (Garrison & Vaughan, 2008) during their monthly meetings (Online Teacher 2). Each August, the Principal also organizes and facilitates an annual face-to-face meeting of all the online teachers and mentors in Red Deer before the start of the school year (Mentor 5).

Student - Recommendations

One student interviewed suggested that there should be more face-to-face group work. She commented that “there are lots of students in my online class but for me it seems easier to work in a face-to-face group” (Student 4).

Mentor - Recommendations

Since the mentors work with the students on a daily basis one mentor recommended that “a mechanism should be developed where mentors could have some input about common student learning issues or problems. I think this would help improve parts of some of the online courses” (Mentor 3). Support is already provided to help new mentors establish their learning centers but one mentor also commented on how important it is to include a social context to these centers so that students immediately have a sense of belonging and community (e.g., displaying their work on the walls, creating a student council, creating a lunch and leisure space).

Principle 3: Good Practice Uses Active Learning Techniques

Learning is not a spectator sport (Chickering & Ehrmann, 1996). Students do not learn much just sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write reflectively about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves. In order to achieve this ideal, Littky and Grabelle (2004) advocate for a learning environment that stresses relevance, rigor, and relationships (3R’s of engagement).

Life Skills

In the interviews, all the mentors and online teachers stressed how relevant the Sunchild E-Learning Community learning experience was for the students. For example, “the students are learning so many key life skills through this program such as time management, money management, public relations skills, online and face-to-face communication skills” (Mentor 7). And, “they are learning important technology life skills through their studies – searching, word processing, spreadsheets. They receive one Career & Technology Studies (CTS) credit for doing the online orientation to the program, which is an introductory computer skills module (Online Teacher 1). In addition, “the program teaches students to be more accountable for their own learning. They become independent, mature, and self-directed learners” (Mentor 2).

Technology

The students indicated that they found learning with technology to be very motivational. They also commented on how “the computers at the center work – very few technical or Internet connectivity problems” (Student 3). One of the mentors also stressed how he had “great local IT support from the Band” (Mentor 3).

Online Learning

Several of the mentors described how the online learning component of the program was interactive and visually stimulating for the students. “Students are able to see everything on the whiteboard, write on the whiteboard, speak, or text. It’s much more interactive than a conversation” (Mentor 2). “The audio and visual recorded tutorials enable students to pick up where they left off. I have seen first-hand, how this is a very valuable aspect of the program” (Mentor 6)

Technology - Challenges and Recommendation

While the students seemed relatively content with the technology and Internet connectivity at the learning centers the mentors and online teachers identified several challenges and recommendations. The Calgary Urban Center has experienced rapid growth and they identified lack of computers and printers as an issue. “It’s sometimes hard to get students to come into our centre when they have to wait for a computer or printer to use” (Mentor 2). At some of the more remote sites Internet connectivity was raised as an issue. “Slow Internet connection – really impacts students’ ability to view the recorded tutorial sessions” (Mentor 4).

Several student issues with technology were also raised. For example, “some of the older students initially find the technology to be a barrier – they lack the previous experience and they panic when they encounter logon or tool problems – they sometimes wish they could just use pen and paper and fax in their work” (Online Teacher 2). Or, “sometimes students forget where they saved their work – on the network or on the computer. After

students make a few mistakes, they don't make them again" (Mentor 3). And, "wide open access to the Internet. I have found that some students become sidetracked very easily – such as going on YouTube" (Mentor 5).

Numerous recommendations were provided by students, mentors, and online teachers about improving the use of technology to support an active learning environment. One online teacher emphasized that it should be "mandatory that all students complete the online orientation module BEFORE they begin their academic studies – reduce anxiety and frustration and level the playing field" (Online Teacher 1). It was also suggested that "all the sites should have the same level of technology – older sites have older computers while newer sites have newer computers" and that there should be "more on-ground technical assistance – some sites are very isolated while others are right in the middle of Calgary" (Online Teacher 1). Several of the mentors echoed these comments and one indicated that he's been working hard to obtain newer technology "but it's the Band's decision and budget" (Mentor 6).

Two mentors stressed the need for "more printers, we always get students to print out their work just in case something gets lost on the computer. Also, students can take their work home with them as many of them do not have computers in their homes" (Mentor 1). And, another mentor commented that she would like to see the "SCCyber website more user friendly – navigation around the site isn't that easy" (Mentor 6).

Finally, one of the students would like to "find a way to use the online whiteboard without using the computer mouse or keyboard – I find it difficult to show the teacher how I can solve a problem by just using my mouse to write out the answer on a whiteboard" (Student 4). A potential solution maybe the purchase of a *Wacom Drawing Tablet* (<http://www.wacom.com/en/Products.aspx>) or even an *iPad* (<http://www.apple.com/ipad/>) for each of the learning centers.

Other – Challenges and Recommendations

The students and mentors both indicated that the Science and Math courses were very demanding. One of the mentors suggested that there should be "extra tutorial time for courses like Science and Math 10. These are heavy courses and there is a lot covered. I think students need some extra time and assistance with these courses" (Mentor 2).

Principle 4: Good Practice Gives Prompt Feedback

Knowing what you know and don't know focuses your learning. In getting started, students need help in assessing their existing knowledge and competence. Then, in classes, students need frequent opportunities to perform and receive feedback on their performance. At various points during courses, and at their end, students need chances to reflect on what they have learned, what they still need to know, and how they might assess themselves. The Sunchild E-Learning Community program places a huge emphasis on frequent and weekly assessment feedback (Figure 4).

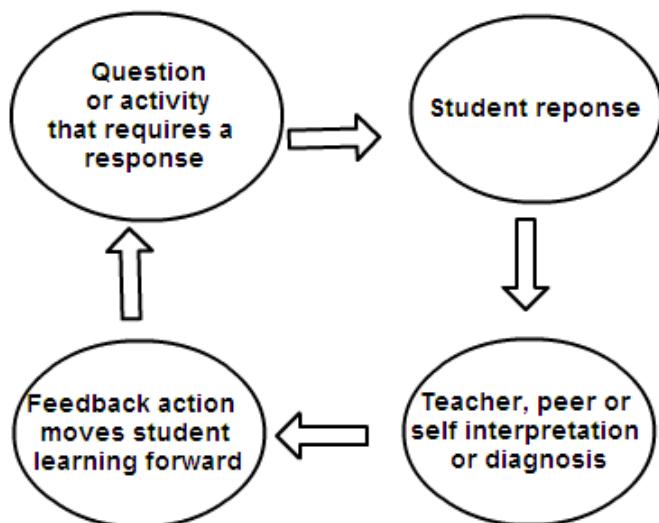


Figure 4: Student assessment feedback loop

Students

Through the use of the online grade book in the *Moodle Learning Management System* the students “have access to their grades online, which is updated every Monday morning. So the students know from Monday to Monday if they are passing or failing a course” (Mentor 1).

Mentors

The mentors are constantly providing students with feedback and checking in on assignment completion. “A week does not go by without me personally checking in on student progress” (Mentor 7). “Any time a student emails a completed assignment to an online teacher it gets copied to the mentor. The mentor also gets a copy of the marked one as well” (Mentor 3). The students commented that this immediate assistance and feedback with questions and any problems with the computers really helped with their academic progress (Student 1).

Online teachers

Students indicated that they can always get an email reply or one-to-one tutorial assistance for difficult questions from their online teachers (Student 3). “All the student assignments that are completed by Thursday are returned to each student by the following Monday with a grade and assessment feedback” (Online Teacher 2).

Principal

If there are any serious academic issues with students the principal of the program will talk to them right away and sort out the problem (Mentor 6).

Integration

The students interviewed described how immediate and weekly feedback from both the online teachers and mentors is critical to their academic success. “If I have a question I get immediate feedback from either the mentor or online teacher – there is no waiting around or confusion” (Student 2). In addition, every Monday the mentors “get a report from the online teachers about each student’s progress. It contains two columns – an average for assignments completed and an average for all assignments, including the ones not completed. I then add my comments to the report and email it to the student. I then sit down and review the report with each student each week” (Mentor 2).

Principle 5: Good Practice Emphasizes Time on Task

Time plus energy equals learning. Learning to use one’s time well is critical for students and professionals alike. Allocating realistic amounts of time means effective learning for students and effective practices for mentors and online teachers. In the interviews, the students and the mentors stressed how the computers, the learning centers, and the weekly emphasis on organization and scheduling helped them stay focused and on-track with their academic studies. (Figure 5).



Figure 5: Focused student work in the learning centers

Computer-based learning

Some of the students interviewed had encountered conflict with teachers and peers at other schools. They indicated that “when I’m on the computer – I’m focused on just learning not worrying about getting along with other students or teachers” (Student 1). I can “focus on learning not on classroom ‘drama’ – it’s not based on your personality like a normal school” (Student 3)

Learning Centers

For many of the students involved in the Sunchild E-Learning community the home environment is not an ideal place for academic studies. Students commented that the learning centers are a “Safe and quiet place to learn – not like my home” (Student 2). The mentors indicated that they “really work hard to make sure there are no distractions” at the learning center (Mentor 2). “The students can work at their own pace. They get their headsets on and they just focus on their learning. They don’t worry about other people in the room or any other distractions” (Mentor 3).

Organization and scheduling

The mentors provide on-going support for the students with the organization and scheduling of their academic studies. “We help our students to continually stay on track with their studies. I meet with each of my students once a week. We go over where they need to be and where they are with their studies. For example, if they have 9 assignments and only 6 have been handed in, what is going on with the other 3?” (Mentor 2). We also “help the students organize and schedule their high school program – funding forms, weekly schedules and progress reports” (Mentor 6).

Challenges

The only challenge identified for keeping students focused and on task came from students and mentors at the Calgary Urban Centre. They indicated that their learning center needs “more computers and printers – as students often have to wait for access” (Student 1).

Principle 6: Good Practice Communicates High Expectations

Expect more and you will get it. High expectations are important for everyone — for the poorly prepared, for those unwilling to exert themselves, and for the bright and well motivated (Chickering & Gamson, 1999). Expecting students to perform well becomes a self-fulfilling prophecy. The Sunchild E-Learning Community has developed a series of strategies to communicate high expectations to their students (Figure 6).



Figure 6. Learning center wall of success

Wall of Success

At “each of our centers there is a Wall of Success – where student accomplishments are posted and profiled” (Mentor 2). In addition, there is a bulletin board at each learning center that advertises careers, future learning opportunities, and colleges and universities – providing goals for the students to strive for.

Additional Strategies

The mentors indicated that the program uses a combination of strategies to communicate high expectations “deadlines, real online teachers to talk to and get help and encouragement. Sunchild is much more motivating

that just using workbooks on your own" (Mentor 7). And, one of the students commented that "all the support makes me want to step up my game and graduate from high school" (Student 4).

Principle 7: Good Practice Respects Diverse Talents and Ways of Learning

Many roads lead to learning. Different students bring different talents and styles to their studies. Brilliant students in a classroom might be all thumbs in a lab or studio; students rich in hands-on experience may not do so well with theory. Students need opportunities to show their talents and learn in ways that work for them. Then they can be pushed to learn in new ways that do not come so easily. Everyone interviewed commented how the Sunchild E-Learning Community's blended approach to learning supports diverse talents and ways of learning (Figure 7).

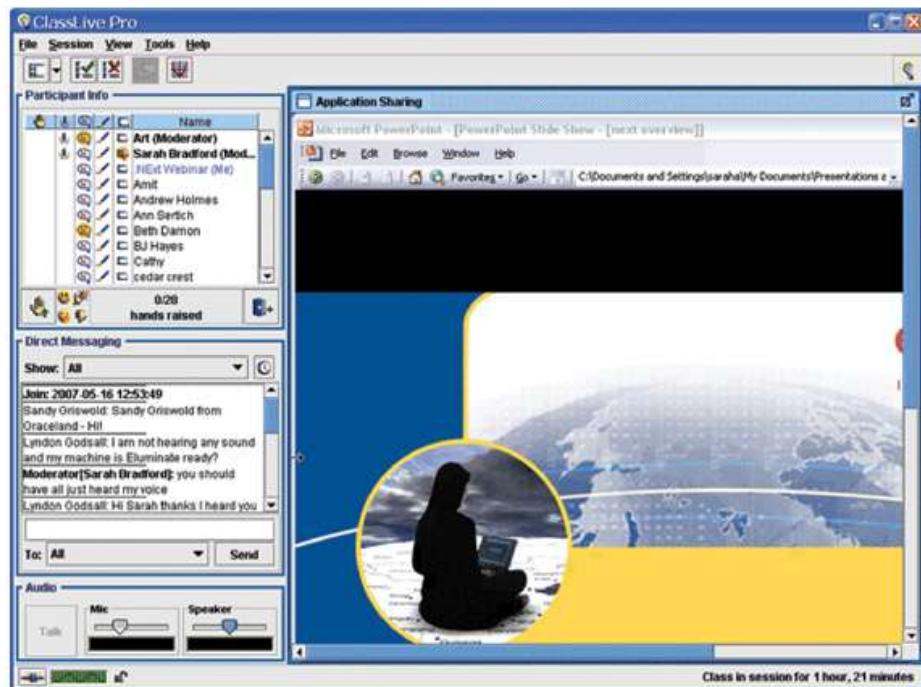


Figure 7: Synchronous online tutorial in Blackboard Collaborate

Blended Learning – Flexibility

The blended approach utilized by this program provides students with the flexibility to succeed in their academic studies. "Flexibility for students like myself who are single parents with children under the age of 12. I could still log on from home and continue my studies. I let the mentor know that I was sick but could still connect with the online teachers. If it wasn't for this flexibility I would probably not have graduated with my Grade 12 diploma (Mentor 6)." "This program takes the best of face-to-face and online learning to provide flexibility and alternative learning pathways for our students. Sunchild is more than just passing or failing our students. We actually want our students to learn and understand what they are being taught – to take ownership for their learning" (Mentor 2).

Blended Learning – Communication

In the online sessions "we can communicate either by speaking or texting – depending on how comfortable we feel" (Student 3). In addition, "online learning is easier and more environmentally friendly – not a lot of paper" (Student 2).

Blended Learning - Self-pacing

All of the online tutorial sessions are recorded and archived "so students can play them again at their own pace and location – at the center or at home (Online Teacher 1). The students indicated that these "recorded sessions are really helpful because sometimes I forget important points or ideas" (Student 4).

Blended Learning – Challenge and Recommendation

One of the online teachers believes there is a "direct correlation between student attendance in the live sessions and student success in a course" (Online Teacher 2). I would recommend that students should be strongly encouraged to not only attend but to actively participate in these live sessions – either by voice or text chat.

Recommendations – Additional Courses

The vast majority of students, mentors, and online teachers interviewed were satisfied with the current courses offered by the Sunchild E-Learning Community. They indicated that these courses provided a solid foundation for an accredited Alberta High School Graduation Diploma. As the program continues to grow and evolve, recommendations were made for additional life skills, options, and college and university bridging courses.

Life Skills

The mentors and online teachers interviewed suggested that there should be “more basic level knowledge and employability skills courses” (Online Teacher 2). For example, “maybe some more life skills courses like coping with conflict and issues. A lot of our students are having problems at home which keeps them from passing or doing any school work” (Mentor 6). In addition, one mentor suggested “more single credit CTS courses” in order to encourage student success and course completion (Mentor 4).

Options

Several mentors suggested the addition of Fine Arts courses such as Art 10. “There are no Fine Arts courses but maybe in the local community they could find someone to teach them piano or art work” (Mentor 5). In the southern part of Alberta, mentors would “like to see us getting the Blackfoot language courses up and running so that we are covering the languages relevant for our students. Sunchild now has sites in all three Blackfoot reserves in Alberta” (Mentor 2).

College and University Bridging Courses

One mentor indicated that “we have some adults who have finished high school who would like to come back but we don’t have any College courses to offer them right now” (Mentor 1). Another mentor mentioned that there are some bridging courses and programs to “NAIT and DeVry but that these should be expanded to other Alberta colleges and universities” (Mentor 6). Hopefully, as a result of this program evaluation study Mount Royal University will become a more active bridging partner.

Conclusion and recommendations

If students learn to make education a priority they are going to succeed in life. (Mentor 3)

The study participants indicated that the blended approach of the Sunchild E-Learning Community program through the deliberate and intentional integration of mentors at local learning centers with online teachers, who provide synchronous tutorials through the use of a web-based learning management system and conferencing tool, was the key to academic success. They also emphasized how this blended approach helped First Nations students overcome major learning challenges such as remote locations, lack of access to digital technologies, high speed internet access, and quality teachers. An evaluation of this program through the lens of the *Seven Principles of Effective Teaching* (Chickering & Gamson, 1999) clearly demonstrates that this task is being accomplished.

Principle 1: Good Practice Encourages Student-Teacher Interaction

Synchronous and asynchronous communication technologies are being used by students in the Sunchild E-Learning Community to increase access to their online teachers and mentors, help them share useful resources, and provide for joint problem solving and shared learning that is being combined with face-to-face mentoring at the learning centers. These communication technologies are strengthening online teacher interactions with all students, but especially with shy students who are reluctant to ask questions or challenge the teacher directly. These students find that it is often easier to discuss values and personal concerns in writing rather than orally, since inadvertent or ambiguous nonverbal signals are not so dominant.

The roles and responsibilities of the online teacher in this program can become overwhelming and a recommendation has been made to have each of the online teachers log their daily activities for a one week period. Then, at one of the monthly team meetings the results can be shared and strategies developed for managing the workload of an online teacher in the Sunchild E-Learning Community.

Principle 2: Good Practice Develops Reciprocity and Cooperation among Students

The Sunchild E-Learning Community strategically works at creating a cooperative learning environment amongst the students, parents, mentors, and online teachers. The focus of the program is on self-paced learning but the study participants suggested that communication and information technologies could be used to support

additional opportunities for study groups, collaborative learning, group problem solving, and discussion of assignments.

In addition, many of the students and mentors emphasized how important it is to create a sense of community at the learning centers (e.g., displaying student work on the walls, creating a student council, creating a lunch and leisure space). A recommendation has been made to have senior mentors travel to new sites to help the new mentors establish their learning centers.

Principle 3: Good Practice Uses Active Learning Techniques

The range of technologies that the Sunchild E-Learning Community uses to encourage active learning is extensive. In the past, apprentice-like learning has been supported by many traditional technologies: libraries, laboratories, art and architectural studios, athletic fields. Newer digital technologies can now enrich and expand these opportunities – especially for those students located in rural and remote parts of Alberta and the Northwest Territories. For example:

- Supporting apprentice-like activities in fields that themselves require the use of technology as a tool, such as statistical research and computer-based music, or use of the Internet to gather information not available in the local library.
- Simulating scientific techniques such as helping chemistry students develop and practice research skills in “dry” simulated laboratories.
- Helping students develop insight. For example, students can be asked to design a radio antenna. Simulation software displays not only their design but the ordinarily invisible electromagnetic waves the antenna would emit. Students change their designs and instantly see resulting changes in the waves. The aim of this exercise is not to design antennae but to build deeper understanding of electromagnetism.

Many of the students enrolled in this program also have their own mobile devices and a recommendation has been made to have them use these devices to document and record their learning in their local communities. For example, they could use their phones to take pictures and record videos that could then be used in the creation of digital stories for course assignments (*Center for Digital Storytelling* - <http://www.storycenter.org/>).

Principle 4: Good Practice Gives Prompt Feedback

The combination of a learning center mentor and online teacher for each course ensures that all students enrolled in the Sunchild E-Learning Community receive timely and regular feedback about their academic studies. Computers also have a growing role in recording and analyzing personal and professional performances. Teachers can use technology to provide critical observations for an apprentice; for example, video to help a novice teacher, actor, or athlete critique his or her own performance. Teachers (or other students) can react to a writer’s draft using the “hidden text” option available in word processors: Turned on, the “hidden” comments spring up; turned off, the comments recede and the writer’s prized work is again free of “red ink.”

In addition, as Alberta Education moves toward portfolio assessment strategies, computers can provide rich storage and easy access to student products and performances. Computers can keep track of early efforts, so teachers and students can see the extent to which later efforts demonstrate gains in knowledge, competence, or other valued outcomes. Performances that are time-consuming and expensive to record and evaluate — such as leadership skills, group process management, or multicultural interactions — can be elicited and stored, not only for ongoing critique but also as a record of growing capacity.

Principle 5: Good Practice Emphasizes Time on Task

The Sunchild E-Learning Community program allows students to work at their own pace in a safe environment with constant monitoring of their progress. The mentors and online teachers interviewed indicate that some students have problems completing their assignments in a timely fashion and thus, have to hastily complete a large portion of them at the very end of the semester. Strategies have been put in place to enforce regularly-distributed deadlines that encourage students to spend time on tasks and help them avoid procrastination. These deadlines also provide a context for regular weekly contact with the mentors and online teachers.

Principle 6: Good Practice Communicates High Expectations

This program does an excellent job of communicating high expectations and publicly praising students through the *Wall of Success* (student course completion certificates) at each learning center. Communicating high expectations for student performance is essential. An additional way for teachers to do this is to give challenging assignments. For example, assigning tasks that require students to apply theories to real-world situations rather than remember facts or concepts. This case-based approach involves real-world problems with authentic data gathered from real-world situations.

Another way to communicate high expectations is to provide examples or models for students to follow, along with comments explaining why the examples are good. Teachers can provide examples of student work from a previous semester as models for current students and include comments to illustrate how the examples met the required expectations. In addition, the online teacher can provide examples of the types of interactions she or he expects in the discussion forum. One example would be to provide an exemplary posting while also providing an example of what *not* to do, highlighting trends from the past that she or he would like students to avoid.

Principle 7: Good Practice Respects Diverse Talents and Ways of Learning

Finally, the Sunchild E-Learning Community clearly demonstrates how communication and information technologies can be used to support different methods of learning through powerful visuals and well-organized text; through direct, vicarious, and virtual experiences; and through tasks requiring analysis, synthesis, and evaluation, with applications to real-life situations. These digital tools are also being used to encourage self-reflection and self-assessment. In addition, technologies are being used in this program to help students learn in ways they find most effective and broaden their repertoires for learning. The technologies, with the mentor and online teacher's support, are supplying the structure for students who need it while leaving assignments more open-ended for students who don't. Fast, bright students can move quickly through materials they master easily and go on to more difficult tasks; slower students can take more time and get more feedback and direct help from the online teachers and mentors.

Finally, every Sunchild E-Learning Community student who participated in this study commented on the "passion and commitment" that the mentors, online teachers, and administrators involved in this program had for student success. They all emphasized that the Sunchild E-Learning Community was "making a difference for their lives". This enthusiasm for learning is definitely infectious and it is strongly recommended that more government departments, educational institutions, and corporations partner with this program in order to expand the positive impact on the lives of First Nations students in Canada.

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