Growth of E-Learning in Small Remote Aboriginal Communities: Implications for University Teacher Education Programs

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Study Overview
Overall intent to identify factors that can potentially enhance success for Aboriginal high school students engaged in web-based learning in Canada

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Study phases to date:
1. An Examination of the effectiveness of web-delivered courses in 5 Aboriginal communities in Labrador, Canada
2. A pan-Canadian exploration of challenges and success factors in web-delivered courses in Aboriginal communities
Phase 1

- On-site interviews and focus group work with students, parents, teachers and school administrators
- Data from provincial, district and school records
- Synchronous e-learning course delivery, set schedule
- Widespread recognition of the critical importance of e-learning in these communities
- CDLI courses provided an opportunity to receive a level and richness of education which would otherwise not be available
- Overall, students did as well in CDLI courses as their other courses
- Sense of surprise and relief from participants that students were able to meet with academic success in these courses and compete with provincial counterparts

BUT.........several issues and challenges identified
### AREAS FOR IMPROVEMENT

<table>
<thead>
<tr>
<th>ORGANIZATIONAL</th>
<th>COMMUNICATIONS</th>
<th>MOTIVATIONAL</th>
<th>CONTEXTUAL</th>
</tr>
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<tbody>
<tr>
<td>Improve scheduling</td>
<td>Improve communication between CDLI teachers and parents</td>
<td>Improve student readiness skills for CDLI courses</td>
<td>Consider alternate physical space for CDLI courses within schools</td>
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<td>Improve onsite supervision</td>
<td>Improve communication between parents and school</td>
<td>Identify and develop student attributes for success in CDLI courses</td>
<td>Improve technical support</td>
</tr>
<tr>
<td>Limit student access to distraction, e.g., Facebook,</td>
<td>Improve communication between CDLI teachers and students</td>
<td>Improve design of selected CDLI courses so they are less text-based</td>
<td>Provide curriculum specialist supports for these schools</td>
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<td>Increase financial support for CDLI courses in schools for materials, etc.</td>
<td>Improve communication between CDLI teachers and onsite supervising teachers</td>
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<td>Provide support for social and emotional issues that may potentially impact student success in CDLI courses</td>
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<td>Improve onsite technical support</td>
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**Phase 2 – Pan-Canadian study**

- Web-based HS course delivery in wide use across Canada and increasingly seen as viable and essential for students in remote Aboriginal communities

- Anticipated that results would help further inform/confirm phase 1 findings

- Identified and interviewed 25 “key informants” who were recognised and recommended to us as provincial/territorial leaders/educators involved in web-based course delivery

- All regions of country represented
What we asked

In your delivery of web-based courses to aboriginal populations, what challenges have you experienced and how did you address these with respect to:

- Organizational issues?
- Communication issues?
- Motivation issues?
- Contextual issues?
- Other issues? E.g. teacher readiness and in-service development?

General findings

- There are wide regional differences in the organization and delivery across Canada
- Web-based learning is viewed as a viable option given the geography and isolation of many communities
- There is no clear cut web-based learning approach that could be considered a panacea….solutions need to fit the local context
- While most web-based course providers favour asynchronous communication, synchronous delivery is very successful in some regions
- Regardless of approach, it is clearly evident that a system of student supports and motivation (especially on site) is needed
General findings (cont.)

- Local communities differ in levels of support and commitment for web-based courses and education in general, but are an integral part of successful web-based learning and need to be involved directly in decisions and management.

- Need for leadership and commitment to web-based learning at different levels (provincial, school district, individual school sites).

- Continued development of technical infrastructure and on-site support required along with committed funding – reliable infrastructure essential.

- Literacy skills and a readiness for web-based courses often cited as a challenge for many students.

General findings (cont.)

- Preparing teachers and support personnel for web-based course in aboriginal communities is a key issue.

- Financial issues were frequently mentioned in terms of responsibility at local sites.

- For some students, web-based courses fill gaps in local on-site offerings, but constitute the whole HS program for others, or can be an opportunity to continue upgrading / high school for adults.

- Develop student essential skills and attributes in readiness for e-learning.

- Need for effective communication between teachers, onsite personnel, students, parents, community.
Strategies for success - organizational

• Strong leadership, responsibility and commitment at all levels
• Pre-service development and ongoing in-service for teachers
• Technical support and access to help as needed for teachers and on-site personnel
• Trained and motivated on-site mentors, facilitators with manageable workloads
• Develop community support for education and in developing culturally relevant content – engage elders, community leaders
• Adequate resourcing (web-based learning is not a cheap option if it is to be effective)
• Facilitate students who may miss schooling for periods of time

Strategies for success - motivational

• Development of a student learning culture and community:
  connecting students to students
  on-line social activities, assemblies, etc.
• Employ interactive delivery approaches
• Develop curriculum with culturally relevant connections
• Have available archived course lessons, materials, recordings, etc.
• Easily accessed and convenient technology support for students
• Have onsite coordinator, learning facilitator, and/or teacher with time dedicated to e-learning and student mentoring
• Use locally qualified people for on-site student help
Teachers for Aboriginal Student E-Learning

(Current situation from interview data)

• Pre-service (B.Ed.) preparation lacks specific hiring needs e.g.
  - Online pedagogy
  - Web-based technology for online learning
  - Aboriginal culture and perspectives on learning

• Hiring preference for “good” teachers with expert subject knowledge

• Mixed opinion on hiring “new” or “experienced” teachers

• Provinces / Territories do not typically list or mandate specific online teacher hiring requirements (just teacher certification)

• In-service preparation (initial and ongoing) critical

Current Mix of Challenges

(location dependent)

• Finding the “right” teachers for e-learning in an Aboriginal context

• Difficulties of recruiting into small isolated Aboriginal communities

• Community attitudes toward education & e-learning

• Working with a mix of students (literacy levels, age range, etc.)

• Establishing working relationship with community leaders, elders, parents

• Establishing & maintaining on-going in-service for teachers

• Articulation with post-secondary education and training
Expectations for E-Learning Teachers

- Work with a diverse group of Aboriginal students
- Embed culturally relevant content into courses & respect cultural traditions
- Have good level of comfort & expertise with e-learning technologies
- Develop trust / confidence of Aboriginal students
- Manage open entry, exit & individualized programs
- Manage online resources (and community-based facilities)
- Work / liaise with community members (including parents)

Recommendation for Teacher Education Pre-Service Programs

- Have online teaching as an optional core component (specialization?), to include, for example:
  - Web-based technologies & environments
  - Online learning initiatives
  - Developing, managing & using online resources
- Embed online course experience within degree programs
- AND, for working with Aboriginal high school students, include for example:
  - Understanding and working with Aboriginal cultures & learning perspectives
  - Developing and using Aboriginal cultural content
  - Managing individualized student programs
  - Addressing learner diversity (literacy levels, age range, etc.)
  - Developing an awareness of living in small, isolated Aboriginal communities & working with community members
Thank you........

Questions?

Access to reports on Killick Centre for E-Learning site -
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