OPEN PRAIRIE LYCEUM:

Distance education for rural high school students in Alberta, Saskatchewan and Manitoba

by Kelli Ralph

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Introduction

This paper describes a distance education institution for rural secondary students in Canada’s Prairie Provinces (Alberta, Saskatchewan and Manitoba), premised on a hypothetical collaborative initiative arising from a Canadian Association of Principals conference where the challenges facing rural education were explored. This hypothetical initiative was advanced through discussions with respective schools districts and provincial associations. A preliminary proposal garnered funding for a market assessment that confirmed a viable niche market (Simonson, Smaldino, Albright, & Zvacek, 2012).

The Open Prairie Lyceum (OPL) concept comprises a federated distance education (DE) school model to serve rural areas, where school abandonment and dwindling enrolments impede students’ learning experiences and access to quality and comprehensive education, and undermine community sustainability (Bennett, 2012; Oncescu, 2013). OPL addresses the economic needs of rural areas by enabling students to develop relationships and gain local work experience, preparing them for higher education, training and careers that may contribute to long-term rural development and revitalization and encourage students to remain in their rural homes permanently (Indiana Partnership for Statewide Education, 2000; Lemoine & Ramsay, 2011; Simonson, Smaldino, Albright, & Zvacek, 2012).

Rural Education in Crisis

Across Canada, school abandonment threatens K-12 education in rural areas, contributing to rural poverty and undermining social structure (Bennett, 2012; Oncescu, 2013). Out-migration is a critical issue, eroding the tax-base funding public education (Oncescu, 2013; CID, 2011). Despite rural population growth in Alberta and Manitoba between 2001-2006 (Saskatchewan declined), overall share of provincial population in rural areas declined, and most of this growth was realized in rural areas adjacent to metropolitan areas (Community Information Database, 2011; Statistics Canada, 2008).

Rural schools struggle with enrollment, high faculty turnover, building maintenance and infrastructure (equipment acquisition, etc.), geographic barriers that include transportation and bus driver retention, cultural barriers, and stable administration and leadership (Manitoba Education and
Advanced Learning, 2014; McKenna, 2013). In 2010, 40% of rural schools in Alberta were facing closures (Northern Alberta Development Council, 2010), and Northland School Division (with the poorest student performance on provincial achievement tests) had its entire board fired by the Education Minister and it has yet to be re-established (McKenna, 2013). In Saskatchewan, 14 rural schools closed in 2007 and others lost high school programs (CBC, 2007). While Manitoba has a policy protecting public schools from closure, enrollment declines have left many rural schools unviable, such as the Reynolds Community School with fewer than five students (Martin, 2014).

Though its uptake has been slow in K-12 education (Simonson, Smaldino, Albright, & Zvacek, 2012), DE has potential for bridging gaps in rural education, and has been implemented (though not specifically for rural students) in the Prairie Provinces via the Alberta Distance Learning Centre (www.adlc.ca); CyberSchool (DE courses offered through 14 school divisions) in Saskatchewan (http://www.skdistancelearning.ca/); and via Independent Study, Teacher-Mediated Option (TMO), or Web-Based Course Option (WBC) (http://www.edu.gov.mb.ca/k12/dl/) in Manitoba. Of these only the ADLC offers full secondary school programming, and there is room for improvement regarding best practices for DE including student-student interaction, collaborative work and connected community.

Open Prairie Lyceum (OPL)

Open Prairie Lyceum’s (OPL’s) name aptly describes the geographic area it will serve, its target student population (secondary students) (Lyceum, n.d.) and general philosophy of education¹.

Incorporating a systems approach (Simonson, Smaldino, Albright, & Zvacek, 2012), OPL will operate as a federated public school with provincial (accredited) arms with a centralized management and administrative structure and shared-services (Foley, 2003; Simonson, Smaldino, Albright, & Zvacek, 2012). Full secondary school programming meeting provincial curriculum standards will be offered. Funding will comprise government grant allocations and municipal property tax contributions transferred based on per capita student enrolment from school division areas in which the student reside.

¹ The term lyceum links back to Aristotle’s peripatetic school (Latin: lykeion) in Athens, Greece, which served as a social hub where researchers and students came together to collaborate in discussion, shared learning and empirical research guided by lecturers who were subject matter experts (Lyceum, n.d.).
Management and Administrative Structure

OPL leadership/management/administration will comprise a principal and vice principal, plus an administrative professional officer (APO) for each province (Simonson, Smaldino, Albright, & Zvacek, 2012). An Advisory Board\(^2\) accountable to respective provincial ministries (Simonson, Smaldino, Albright, & Zvacek, 2012) will meet quarterly via tele-, web- and/or video-conference.

Centralized administration will also include an admissions and certifications coordinator; student services (commensurate with on-campus services) (IPSE, 2000; Simonson, Smaldino, Albright, & Zvacek, 2012); faculty development coordinator; and subject program administrators. A graphic communications department (GCD) that includes visual designers will work collaboratively with faculty and an instructional design and media/IT department (IDIT) on course development (Caplan & Graham, 2004). Caplan & Graham (2004) describe centralized ID and IT teams produce high quality materials that meet institutional guidelines\(^3\). IDIT will also provide technical support to the entire OPL community. A librarian will oversee OPL’s digital library; advise course development teams on resource availability, copyright and fair use; and coordinate production of course packs and obtain permissions. Shared-services will additionally cover technology licensing, production costs, and faculty training.

A consultation process led by OPL leadership produced a school vision – *Providing high quality, comprehensive and transformative public education to rural students in Canada’s Prairie Provinces through a connected community* – and set of strategic objectives: 1) Comprehensive education that mediates geographic barriers; 2) Transform education through a connected community and learning experiences unique to DE; 3) Address local needs and priorities to revitalize rural communities and sustain long-term development; 4) Prepare students for competitive higher education and/or workforce entry; 5) Support students in developing meta-skills for lifelong learning; and, 6) Support professional development of digital age educators (Berge & Muilenberg, 2000; Puentadura, 2014; Seimens, 2005;  

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\(^2\) Consisting of: Three administrators (P, VP, APO) (appointed); one faculty program lead (rotating appointment); one instructor (elected); student association President (appointed); one external representative (appointed); one parent (elected); three education ministry representative (appointed).

\(^3\) Referencing Bates (2000), Simonson et al. (2012, p 173) describe the team approach results in superior materials and multimedia integration, but is expensive; OPL’s three-province base may provide enrolment numbers sufficient to support a team approach via centralized share-services.

**Institutional Policies and Information Resources Development**

All institutional policies and information resources will be established (through a consultation process) and published (on the school’s web site, with print/downloadable versions available) prior to opening enrolment (Simonson, Smaldino, Albright, & Zvacek, 2012). Policies will address key areas identified by Simonson, Smaldino, Albright and Zvacek (2012, p. 327-334): Academic, fiscal, governance, labour management, legal, student support, and quality control. Best practices will remain works-in-progress via Wikis, with stakeholder input that will inform policy updates and revisions.

**Faculty Recruitment, Readiness and Professional Development**

Faculty recruitment will target certified teachers with DE experience (whether as instructor or student). Two types of faculty will be hired: Academic Program Leads who will lead development of customized common content (learning and knowledge objects) integrating provincial curriculum equivalencies (Bale, 2005); lead formative evaluation and course, program and content updates/revisions every three years; oversee instructional faculty; and develop and communicate subject program learning objectives to instructional faculty; and Instructional Faculty (“Instructors”), who will to deliver courses; interact with students and facilitate learning; facilitate a connected community amongst course participants; determine how to relate content to students towards fulfilling the learning objectives; adapt and supplement content and activities relevant to students⁴ (Garrison, 1990; IPSE, 2000; Schlosser & Burmeister, 1999; Simonson, Smaldino, Albright, & Zvacek, 2012); and complete student assessments.

Faculty will have a minimum of two professional development (PD) days each month. OPL will establish a fund to subsidize faculty professional development. Certification in DE will be required within 24 months of hiring. An affordable option is the University of California-Irvine’s online Virtual Teacher certificate program (https://www.coursera.org/specialization/virtualteacher/10), offered through Coursera, covering topics relevant to DE in K-12 education and the practical application of skills.

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⁴ For instance, content regarding river ecology for biology students in Northern Alberta.
IDIT will identify and evaluate trends in educational technology, produce training resources and maintain a Faculty Training Centre (FTC) in OPL’s course management system (CMS). The FTC will be updated frequently, and will incorporate visual-based instructional design. In advance of faculty PD days, IDIT will email faculty links to new resources available on the FTC. Statistical data from the FTC will contribute to each faculty member’s professional development record, and will be rewarded in performance reviews, promotions and tenure (Berge & Muilenburg, 2000; Caplan & Graham, 2004; Simonson, Smaldino, Albright, & Zvacek, 2012).

Internal training for faculty (and other staff), such as workshops on regulation changes, will be developed centrally by administration, IDIT and other internal topic experts (e.g. librarian). Video-conferencing, which Anderson (2008) found effective for workplace training in a sample of rural Alberta schools, will facilitate synchronous activities. Online training modules will be completed through the CMS, with the dual purpose of providing faculty with experience using the CMS as learners. Similarly, faculty will maintain a development e-portfolio (Regis University, n.d.) through the CMS, as will students. These e-portfolios will be reflective tools, and faculty will be encouraged to self-assess utilizing the TPACK framework (http://www.tpack.org/), which identifies intersections between competencies in technology, pedagogy and content knowledge (McGreal & Elliott, 2008; Mishra & Koehler, 2006). Improvements can be tracked from year to year through these self-assessments represented in visual form, and included in performance review, with incentives and rewards for critical reflection and innovative practice (IPSE, 2000; Simonson, Smaldino, Albright, & Zvacek, 2012).

Best Practices Wiki

Administration, faculty and staff will contribute to best practices Wikis via the CMS (McGreal & Elliott, 2008). These collaborative Wikis will foster a sense of community within a workplace where face-to-face (f2f) interaction is limited. A safe disclosure policy will encourage openness in idea sharing (Vioral, 2013), and instances of contributing (not substance of contributions) will be recognized during

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5 Demonstrates their competencies and the completed components of their professional development plans (Regis University, n.d.).
performance reviews (Simonson, Smaldino, Albright, & Zvacek, 2012).

Workload

Simonson et al. (2012) describe that teaching in a DE environment requires additional instructor time for preparation, communication, etc. To accommodate this, OPL instructors will teach a maximum of four courses per semester, and course size will be limited to 10-12 students. Instructors will receive salaries commensurate with those of teachers in traditional f2f classrooms with a greater course load.

Course/Content Ownership Policy and Copyright Policy

Policy defining OPL as the owner of all courses and content developed will be outlined in each faculty employment agreement (IPSE, 2000; Simonson, Smaldino, Albright, & Zvacek, 2012). Rationale for this is based on utilization of the team approach used in development, re-use, and ongoing formative evaluations and revisions of courses (Simonson, Smaldino, Albright, & Zvacek, 2012).

Institutional policy will articulate the four tests for fair use of copyrighted materials for education purposes, and will integrate copyright guidelines from Canadian and international regulations\(^6\) covering print and digital written (including emails, internet posts), video, audio and image materials (Simonson, Smaldino, Albright, & Zvacek, 2012). Led by OPL’s librarian, faculty, staff and students will receive annual re-orientation training regarding OPL’s copyright policies, accessing materials via Creative Commons (http://creativecommons.org) and Access Copyright (http://www.accesscopyright.ca), etc.

Copyright policy will be posted on OPL’s web site, with links provided in the CMS. This policy will proscribe using public domain versions of sources if available, and against using sources for which copyright cannot be ascertained. Additionally, this policy, will confer on OPL responsibility for copyright infringements committed in course development and delivery, premised on OPL’s policy regarding course/content ownership (Simonson, Smaldino, Albright, & Zvacek, 2012).

“Prairie Dogs”: Student Characteristics

Approximately 5%-8% of the Prairie Province’s rural population is aged 15-19 (NADC, 2010; Including the Canadian and United States’ copyright acts, Access Copyright Elementary and Secondary School Tariffs 2010-2012 and 2013-2015 (Canada), Digital Millennium Copyright Act (U.S.), and Technology, Education and Copyright Harmonization (TEACH) Act (U.S.).
Rural Development Institute, 2012; Saskatchewan Health, n.d.). OPL’s student body will be drawn from those students without local access to comprehensive f2f classroom education; those juggling family and work commitments; and those needing only a few credits to graduate (MEAL, 2014). Some may already be undertaking DE through existing provincial options. Aboriginal students (on- and off-reserve) will likely be represented in OPL’s student body (CID, 2011).

The OPL student body will comprise “millenials” who Simonson et al. (2012, p. 221-222, p. 234) describe as media-literate social networkers who are team- and community-oriented and prefer active learning and team- and community-oriented environments. Lemoine and Ramsay’s (2011) survey of rural Manitoba youth indicated most had access to Internet communications technology (ICT) at home; text-messaging was the most common use of ICT followed by Facebook and Twitter. Email and chat were utilized infrequently, and use of Skype was virtually nonexistent (Lemoine & Ramsay, 2011).

Despite internet availability at home, OPL students may have limited access to resources outside of a school building, local learning site or library, and course delivery will consider these accessibility issues. (Simonson, Smaldino, Albright, & Zvacek, 2012, p. 222).

Students will be approaching adulthood, so learning experiences should support their developing independence and future plans for higher education and careers (Bernt & Bugbee, 1993). Lemoine & Ramsay (2011) reported many students they surveyed planned to stay in rural Manitoba permanently.

**Technology to Span the Open Prairie**

**Internet Connectivity**

Web-based course delivery means OPL students should have internet access. Under its shared-services model, OPL administration will negotiate educational pricing with internet, cellular and 3G service providers, to offset costs of home internet and mobile service. In Alberta, high speed internet is available to rural homes through service providers linked to an Alberta SuperNet Point of Presence (PoPs) (Axia SuperNet Ltd, n.d.). This provides a model for extending/replacing existing infrastructure.

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7 PoPs are available in 429 communities across the province (Axia SuperNet Ltd, n.d.).
in Saskatchewan (CommunityNet) (http://www.education.gov.sk.ca/CommunityNet) (Smith, 2014), and Manitoba (MERLIN) (https://www.merlin.mb.ca/) connecting educational facilities, libraries and other public institutions (physical buildings) but not homes.

Course Management System: Sakai 10

The CMS will integrate with OPL’s web site. Sakai 10, released July 8, 2014, is a comprehensive open-source CMS platform offering flexibility in design and customizable navigation; statistics and reporting capabilities to support course administration; compatibility with modern browsers and mobile devices; and integrated proprietary and Web 2.0 tools and flexible third party tool interoperability (online polls, Turnitin, Wikis and Adobe Connect, assistive technology such as Kurzweil 3000) (Apereo Foundation, 2014a, 2014b; Caplan & Graham, 2004; Chickering & Gamson, 1987; Simonson, Smaldino, Albright, & Zvacek, 2012). Although Sakai was developed for higher education settings, its greater visual design and layout flexibility, single-page lesson organization, and more comprehensive built-in e-portfolio function better meets OPL’s pedagogical objectives compared to Moodle, another top open source CMS (Apereo Foundation, 2014a, 2014b; Caplan & Graham, 2004). Other built-in features that will facilitate OPL’s best practices for course design include: Course syllabus; calendar; internalmail; announcements; discussion forums; chat; graphic organizers; site roster; social networking; tests and quizzes; matrices create; forms create; gradebook; digital dropbox; authentication protocols; and course evaluations (Apereo Foundation, 2014a, 2014b; Caplan & Graham, 2004; Chickering & Gamson, 1987; Simonson, Smaldino, Albright, & Zvacek, 2012). Sakai 10 will support students in developing meta-skills that will contribute to their emerging independence in learning (Simonson, Smaldino, Albright, & Zvacek, 2012).

Mobile Devices

Mobile device use will be encouraged to keep students connected to their courses, instructors and peers (e.g.. course Facebook page), and to facilitate real-time activities and interaction (e.g. online polls, text-messaging) (Lemoine & Ramsay, 2011; Simonson, Smaldino, Albright, & Zvacek, 2012). Students
will become familiar with mobile devices as backup technology; for instance, to post in discussion forums when broadband service is down (Simonson, Smaldino, Albright, & Zvacek, 2012). Course materials may include e-textbooks, so mobile devices can double as e-readers and provide materials portability. Subsidies may be offered to students to offset the costs of devices and cellular service. Incorporating mobile devices into learning is a trend highlighted in the New Media Consortium’s 2014 Horizon Report for K-12 education (NMC, 2014).

**Course Development and Delivery, and Pedagogical Considerations**

**OPL Curriculum**

Bale (2005) describes curriculum equivalencies amongst the Prairie Provinces, established by the Council of Ministers of Education. This is a key policy informing OPL’s federated structure. Applying a post-Fordist theoretical framework (Simonson, Smaldino, Albright, & Zvacek, 2012) and OPL’s shared-services model, these equivalencies will guide the centralized development of common course content for decentralized adaptation and delivery through OPL’s provincial arms.

Courses will be offered year-round, with a condensed summer semester. This will help circumvent “summer slowdown” (lack of access to learning activities) that is generally mediated by family economics and community programming, which may be especially challenging in rural areas (Woolfolk, Winne & Perry, 2011).

Courses will comprise core secondary subject areas (language arts, math, science, social studies, physical education), limited electives based on feasibility of DE delivery (Français, Aboriginal languages, drama, music, economics, psychology, social sciences, history, geography, and politics) plus required work experience. Electives will include occupational studies based on statistics for emerging, stable and growing rural job sectors in the Prairie Provinces, such as construction, forestry, mining, oil and gas, transportation, food services, tourism, health care, technical services, utilities, manufacturing,

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8 OPL’s physical education program will consist of online lessons, individual physical activity, and group physical activity (such as team sports) where possible. Curriculum requirements regarding physical activity hours will guide each phys ed course. Similar to the ADLC, students (and groups of students) will build their own phys ed course, in consultation with a physical education faculty instructor, choosing activities according to personal, group interests, and students may be supervised by parents, coaches, or a site facilitator (Alberta Distance Learning Centre, 2014).
cultural and recreation, public administration, and retail (Alberta Education, 2014; CID, 2011). (See http://education.alberta.ca/media/8223731/coursecodes2013.pdf for a detailed curriculum overview.)

Work Experience and Apprenticeship

Simonson et al. (2012) describe that learning is enhanced when learning experiences integrate real-world relevance, dealing with real-world problems. Community service and occupational work experience offer these constructivist learning opportunities (Simonson, Smaldino, Albright, & Zvacek, 2012), and align with provincial curricula. In addition to contributing to community human resources development, student work experience promotes volunteerism, which Oncescu (2013) describes as an eroding rural cultural institution that historically supported community continuity and sustainability. Centralized administration of OPL’s work experience program will enable broader access to workforce partners and opportunity pools for student placements. Students will be encouraged to undertake their work experience during the summer semester, to combat “summer slowdown”, and to capitalize on easier travel and more diverse opportunities for outdoor work.

Apprenticeship or trade certificates are required for many rural jobs (CID, 2014). OPL will participate in provincial high school apprentice programs, providing students with opportunities for hands-on training in designated occupational trades, which earn credits towards high school graduation.

Students will reflect on their work experience and/or apprenticeship in their e-portfolio (including a final report), where peers will review and provide feedback (McGreal & Elliott, 2008).

Course Development, Design and Delivery

Course development and design will respond to specific learning outcomes and objectives and assessment aims determined in advance (Foley, 2003; Simonson, Smaldino, Albright, & Zvacek, 2012), and will incorporate two fundamental principles Simonson et al. (2012, p 153) identify as critical to DE and a student-centred approach: 1) Visual-based instruction (appropriate for and capitalizing on digital

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9 Alignment (Foley, 2003; Simonson, Smaldino, Albright, & Zvacek, 2012).
media), and, 2) Engaging students (through collaborative work and social connectedness)\textsuperscript{10} (Ahern & Repman, 1994; Simonson, Smaldino, Albright, & Zvacek, 2012; Sorensen & Baylen, 2004)

Academic Program Leads (subject matter experts) will work collaboratively with IDIT, GCD, and the librarian to develop customized course content (Simonson, Smaldino, Albright, & Zvacek, 2012; Bates, 2000). Course content will comprise reusable learning and knowledge objects for common delivery by instructors in all three provinces (McGreal & Elliott, 2008; Simonson, Smaldino, Albright, & Zvacek, 2012). Content will be imported into the CMS. With input from the development team, instructors will design course sites within the CMS, determine sequencing of content, design learning experiences, and adapt, supplement or substitute content and activities that are more relevant to students and enhance learning experiences\textsuperscript{11} (Garrison, 1990; IPSE, 2000; Schlosser & Burmeister, 1999; Simonson, Smaldino, Albright, & Zvacek, 2012).

Course organization will follow the linear-designed instruction approach, which Simonson Smaldino, Albright and Zvacek (2012, p. 198) say helps students understand “what is expected of them and how the course will function”, with sequencing that ensures students achieve the learning required in each topic within a module before moving on to the next topic. This structure, applied consistently across courses, will be particularly important as OPL students are younger, and many will not be characteristic independent learners (Bernt & Bugbee, 1995). Course development will adapt the general U-M-T framework described by Simonson et al. (2012) for use in higher education DE (see Table 1).

Table 2. Unit-Module-Topic Framework

<table>
<thead>
<tr>
<th>Course Breakdown</th>
<th>Assessment Distribution</th>
<th>&gt; Sample Assessment Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester = 1 unit/course</td>
<td>2 major assessments per unit</td>
<td>&gt; Mid-term exam; Final/Diploma exam</td>
</tr>
<tr>
<td>Unit = 3-5 modules</td>
<td>2 major assignment per unit</td>
<td>&gt; 1 major paper; 1 project</td>
</tr>
<tr>
<td>Module = 3-5 topics</td>
<td>1 minor assignment per 2-3</td>
<td>&gt; 3 topic quizzes; 3 small assignments;</td>
</tr>
<tr>
<td>Topic = 1 learning outcome</td>
<td>modules</td>
<td>threaded small group discussions</td>
</tr>
</tbody>
</table>

\textsuperscript{10} Although Simonson, Smaldino, Albright and Zvacek (2012) describe student-student interaction provides more dynamic learning opportunities in DE, and Sorensen & Baylen (2000) describe how group activity increases interaction, Simonson (2011) notes that forced interaction undermines learning experiences. Therefore, interaction and collaborative group work will be incorporate only when it will enhance learning.

\textsuperscript{11} Supplemental/substitute learning objects may be sourced from the eduSource Canada Network of Learning Object Repositories and other repositories (EDNA, MERLOT, SMETE), in collaboration with IDIT and considering interoperability (Caplan & Graham, 2004; Simonson, Smaldino, Albright, & Zvacek, 2012).
Visual-based Instructional Design

The GCD will advise on visual design, guided by best practices demonstrated in Figure 1. IDIT will test content in various mobile device formats and provide any supplemental programming needed to ensure information/task hierarchy is maintained.

Figure 1. Sample lesson on course site with z-layout, demonstrating visual-based instructional design

Course Delivery, Activities and Learning Experiences

Course delivery will use the following considerations to guide media incorporation:

- Media should enhance learning experiences and actively engage students;
- Multimedia presentation, including students choosing media for expressing their work\(^\text{12}\);
- Balance media variety with considerations of cost and programming complexity.


For instance, concept maps (e.g. MindMeister, bubbl.us, Text 2 Mind Map) and graphic organizers (built-in to Sakai 10 CMS) aid student comprehension by organizing and presenting

\(^{12}\) Fosters diversity (Caplan & Graham, 2004; Chickering & Gamson, 1987; Graham, Cagiltay, Lim, Craner, & Duffy, 2001; Sorensen & Baylen, 2004).
information visually (Simonson, Smaldino, Albright, & Zvacek, 2012).

Anderson (2008) reported that courses delivered via synchronous video-conferencing did not improve learning experiences for rural students in Alberta. Foley (2003) describes that video- and web-conferencing can be costly and unreliable. Therefore OPL will reserve these tools for student use in collaborative work and communicating with instructors, peers, student services and other school supports. Foreman (2003) found tele-conferencing best supports small group work, therefore OPL will set up toll-free numbers or a teleconferencing system that students can use in collaborative work.13

Course delivery will be primarily asynchronous. However, rural school abandonment has left many empty or under-used school buildings with technological infrastructure in rural Alberta, Saskatchewan and Manitoba, which may serve as local learning sites for students to gather for f2f activities, including synchronous review of course content (Simonson, Smaldino, Albright, & Zvacek, 2012). This will be encouraged as it will foster student interaction, peer support and a sense of community (Simonson, Smaldino, Albright, & Zvacek, 2012). Local learning sites will be staffed by site facilitators who support students and instructors; serve as an intermediaries (e.g. picking up on visual cues that distant instructors miss); communicate with parents; refer students to school supports; provide technical assistance; assist students with time management and self-organization; oversee some activities and record some objective data for assessment; collect assignments, etc., in the event of connectivity issues; and coordinate and invigilate exams (Simonson, Smaldino, Albright, & Zvacek, 2012).

Narrated digital slides will replace traditional lecture, posted in the course site for online viewing and/or download. Links to digital readings (such as news articles), videos, etc., will supplement the slides. E-textbooks14 and digital course packs may be used via computer or mobile device. Backup copies of narrated slides, e-texts and course packs will be kept in the OPL library (with applicable permissions), and loaned to students when needed (Simonson, Smaldino, Albright, & Zvacek, 2012).

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13 Newer web-based options, such as Google Hangout (integrated in Sakai 10) may better support student learning and collaborative work.
14 Pearson Canada offers K-12 e-texts, some written specific to provincial curricula, for a one-year per student subscription fee of $8.00 that OPL could cover or subsidize (http://www.pearsoncanadaschool.com/).
One synchronous activity will be a weekly group\textsuperscript{15} discussion facilitated by the instructor via teleconference. These sessions will foster a sense of “immediacy” (“being together”) and provide instructors with feedback regarding student comprehension and need for support, which may contribute to formative assessment (Caplan & Graham, 2004; Fox & Helford, 1999; Simonson, Smaldino, Albright, & Zvacek, 2012). Activities such as online polls undertaken during these sessions, and weekly online quizzes based on these discussions, will provide data regarding attendance and student engagement in the absence of f2f cues (Simonson, Smaldino, Albright, & Zvacek, 2012).

Other activities will capitalize on the characteristics of “milennials”, emphasizing active and constructivist learning, challenging tasks that communicate high expectations, small group discussions, collaborative work, peer-based teaching, and scaffolding (Caplan & Graham, 2004; Chickering & Gamson, 1987; Graham, Cagiltay, Lim, Craner, & Duffy, 2001; Simonson, Smaldino, Albright, & Zvacek, 2012; Sorensen & Baylen, 2004). Examples may be:

- Threaded online discussion forums facilitated by the instructor;
- Collaborative WebQuests;
- Virtual worlds and game-based learning, which provide a virtual activity space (e.g. for group discussions), promote digital storytelling and tangential learning, and enable simulations for practice and experience with decision-making and consequences\textsuperscript{16};
- Case-based and problem-based learning;
- Virtual field trips and interaction with topic experts (e.g. virtual field trip to science centre, web-conference with astronaut Chris Hadfield);
- Web 2.0 tools (e.g. Wikis\textsuperscript{17}) and mobile technology that provide collaborative workspace and facilitate producing multimedia artefacts;
- Private course Facebook page administered by instructor, promoting student socializing;

\textsuperscript{15} Or subgroups, or individual student in Phys Ed, as applicable.

\textsuperscript{16} Game-based learning is a trend identified in the NMC’s 2014 Report for K-12 education (NMC, 2014).

\textsuperscript{17} Allows instructors to delineate each group member’s contributions (Simonson, Smaldino, Albright, & Zvacek, 2012).
Feedback and Assessment

Students will complete numerous low stakes assessments (quizzes, small assignments, discussion forums), which will facilitate practice, ongoing feedback, motivation, formative assessment (by instructors), mastery and confidence building in preparation for high stakes assessments (term papers, mid-term and final/diploma exams) for summative assessment (Keller & Suzuki, 2004; Simonson, Smaldino, Albright, & Zvacek, 2012; Sorensen & Baylen, 2004). Online activities and work (e.g. e-portfolio contributions) will enable instructors to observe student behaviour indicating learning achievements (Simonson, Smaldino, Albright, & Zvacek, 2012). Criterion-referenced scoring will be utilized for grading student work, and norm-referenced scoring will be used for formative evaluation of courses (Simonson, Smaldino, Albright, & Zvacek, 2012).

Supporting Our “Prairie Dogs”

Assessing Student Readiness

Completing a screening form through OPL’s web site will be the first step towards admission. This form will ask eligibility questions (age, residence, etc.), and student readiness questions. The admissions coordinator will follow-up by telephone for an in-depth interview assessing DE readiness and identifying barriers to be addressed (skills limitations, access to technology at home or at local learning sites, etc). Special attention will be paid to cognitive abilities and skills for independent and collaborative work information that will aid instructors in course design and assigning students to course subgroups (Bernt & Bugbee, 1993; Bozik, 1996; Fjortoft, 1995; Foley, 2003; Fjortoft, 1995; Simonson, Smaldino, Albright, & Zvacek, 2012; Smith & Dunn, 1991).

Orientation Training

Simonson, Smaldino, Albright and Zvacek (2012) describe that multiple assessment types provide more complete information regarding student learning achievement, and lack of comprehension that may need support, branching, etc.
Upon admission, all students will complete online orientation training, developed collaboratively by IDIT, instructional faculty and other school supports, and comprising the following:

- Tour of OPL’s web site and CMS, including where and how to access information and resources (course calendar, contacts, technical support, students services, course registration, policies, etc.);
- Hands-on training and simulations to familiarize students with CMS navigation, functions and tools, such as saving a document to specified format, submitting to a digital dropbox, and Web 2.0 tools and collaborative tools such as Wikis, web-conferencing and teleconferencing;
- Accessing the digital library via the CMS and school web site, and how to use library resources such as database searching and citations guides;
- Copyright policies, plagiarism and academic integrity, including practice using Turnitin;
- Appropriate use of IT and media, and examples of appropriate language and content;
- Translating existing skills with media to an educational setting;
- Self-directed behaviour, time management and organizational skills training, including how to use the organizational tools embedded in the CMS; and
- Setting up their e-portfolio.

(Bozik, 1996; McGreal & Elliott, 2008; Simonson, Smaldino, Albright, & Zvacek, 2012; Smith & Dunn, 1991)

**e-Portfolio**

Students will maintain a hybrid development and assessment e-portfolio, which will transition to a showcase portfolio as they near graduation and prepare for higher education or workforce entry (Regis University, n.d.). Student reflection will provide instructors with a resource for formative assessments (Graham, Cagiltay, Lim, Carner, & Duffy, 2001; McGreal & Elliott, 2008; Simonson, Smaldino, Albright, & Zvacek, 2012). Instructors can learn their students’ characteristics, such as age, cultural

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Studies, such as length of time and number of tries to complete tasks, will be accessible to instructional faculty to help inform their selection of course tools based on student competencies and identifiable needs and opportunities for skills development and scaffolding (Caplan & Graham, 2004; Fox & Helford, 1999). This data will also identify supports and guidance students may need in prioritizing, organizing and managing their time, meta-skills that may be needed to support lifelong learning that could include ongoing workplace learning (Simonson, Smaldino, Albright, & Zvacek, 2012).
background, work and family commitments, interests, educational history, technology competency, cognitive abilities, and learning styles, information that will help instructors determine how best to relate content, tools choice (for student skill level and for skills scaffolding), and how to organize subgroups and plan relevant activities (Bozik, 1996; Caplan & Graham, 2004; Fox & Helford, 1999; Simonson, Smaldino, Albright, & Zvacek, 2012, p. 156-157; Smith & Dunn, 1991). Getting to know students through their e-portfolios will also help instructors detect academic dishonesty (Simonson, Smaldino, Albright, & Zvacek, 2012). Additionally, e-portfolios will serve as “ice-breakers” amongst students newly introduced (links to e-portfolios can be posted in course welcome forums), which will support students with partnering for collaborative work (Simonson, Smaldino, Albright, & Zvacek, 2012).

Syllabus and Information Redundancy

Simonson et al. (2007) and Caplan and Graham (2004) describe the course syllabus as the most important tool for supporting students. The syllabus will be available at the beginning of the course, will comprise the main page of a course site, and in formats for downloading/printing and importing into individual calendars (Simonson, Smaldino, Albright, & Zvacek, 2012). The syllabus will provide a description and schedule of modules and topics, learning objectives, activities and assignments, tests, how students will receive feedback (gradebook, email, e-portfolio comments, etc.) and a timeframe for receiving feedback (Caplan & Graham, 2004; Chickering & Gamson, 1987; Macfarlane & Smaldino, 1997; Sorensen & Baylen, 2004). Deadlines will be provided in the syllabus and a class calendar, along with a grading breakdown and rubric (Simonson, Smaldino, Albright, & Zvacek, 2012). Instructors will additionally send out reminders (via internamail and external email) each week, describing that week’s activities and highlighting task deadlines, tests, etc. (Simonson, Smaldino, Albright, & Zvacek, 2012).

The syllabus will describe contingencies and alternatives for completing course work if technical issues arise; for instance, instructions to post in e-portfolios if discussion forums are not working, (Simonson, Smaldino, Albright, & Zvacek, 2012). The syllabus will outline the instructor’s virtual office hours, how to contact the instructor, and timeframes for responses to individually to student requests.
(Simonson, Smaldino, Albright, & Zvacek, 2012).

**Conclusion**

The OPL concept presents a model that integrates best practices in DE and offers a potential solution not only to address gaps in rural secondary education, but also to provide programming, relationship-building and skills development that focus on addressing the unique economic, political and social needs and priorities of rural Alberta, Saskatchewan and Manitoba.

Cultivating a sense of community and a school culture of connectedness are key factors for student engagement in DE (Simonson, Smaldino, Albright, & Zvacek, 2012). The OPL model fosters these, with the tangential benefit of reproducing the broader social structure that rural schools traditionally provided that supported community sustainability (Oncescu, 2013).

A final innovation the OPL model could adopt is a grade- and location-based enrolment cohort (Simonson, Smaldino, Albright, & Zvacek, 2012) that would specifically prioritize and support the social development of its students, capitalizing on existing relationships. This innovation would further distinguish OPL from DE options currently available in the Prairie Provinces. Students would advance with their cohort peers, which would provide students grouped regionally to gain experience working collaboratively on activities relevant to the needs and priorities of their regions/communities (including work experience and occupational focused studies), and develop relationships that may translate to long-term relationships that contribute to overall community revitalization, continuity, social structure and sustainability, influencing students in their higher education and career choices as well as long-term choice for rural vs. urban residence (IPSE, 2000; Lemoine & Ramsay, 2011; Oncescu, 2013; Schlosser & Burmeister, 1999; Simonson, Smaldino, Albright, & Zvacek, 2012).

**References**


Indiana Partnership for Statewide Education (IPSE). (2000). Guiding principles for faculty in distance


