

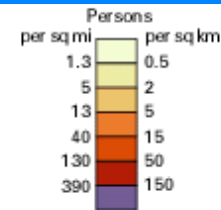
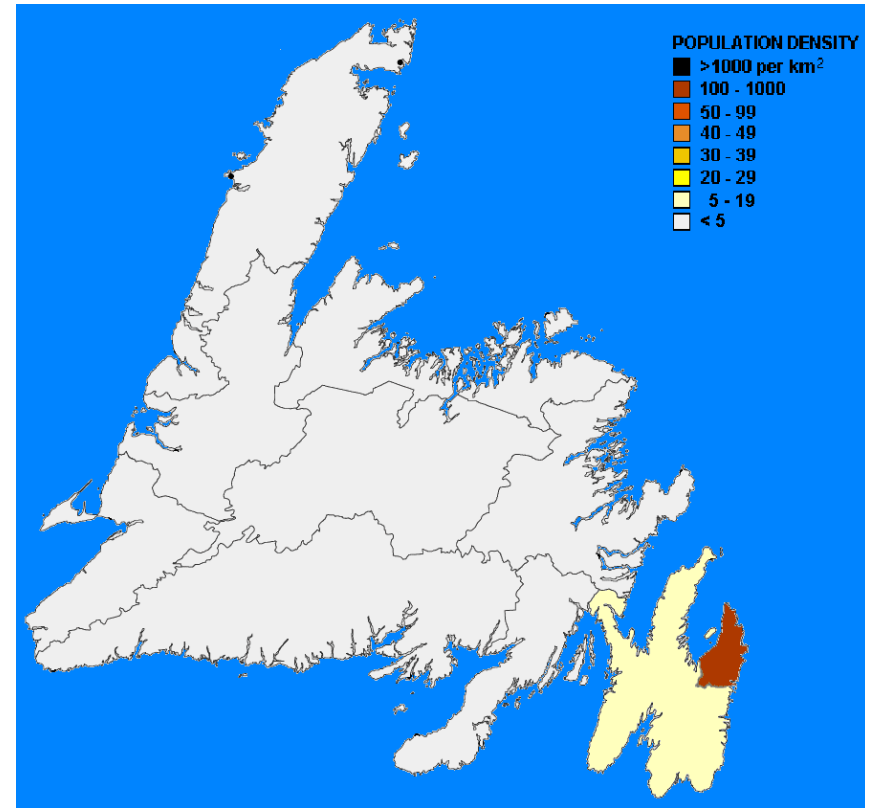
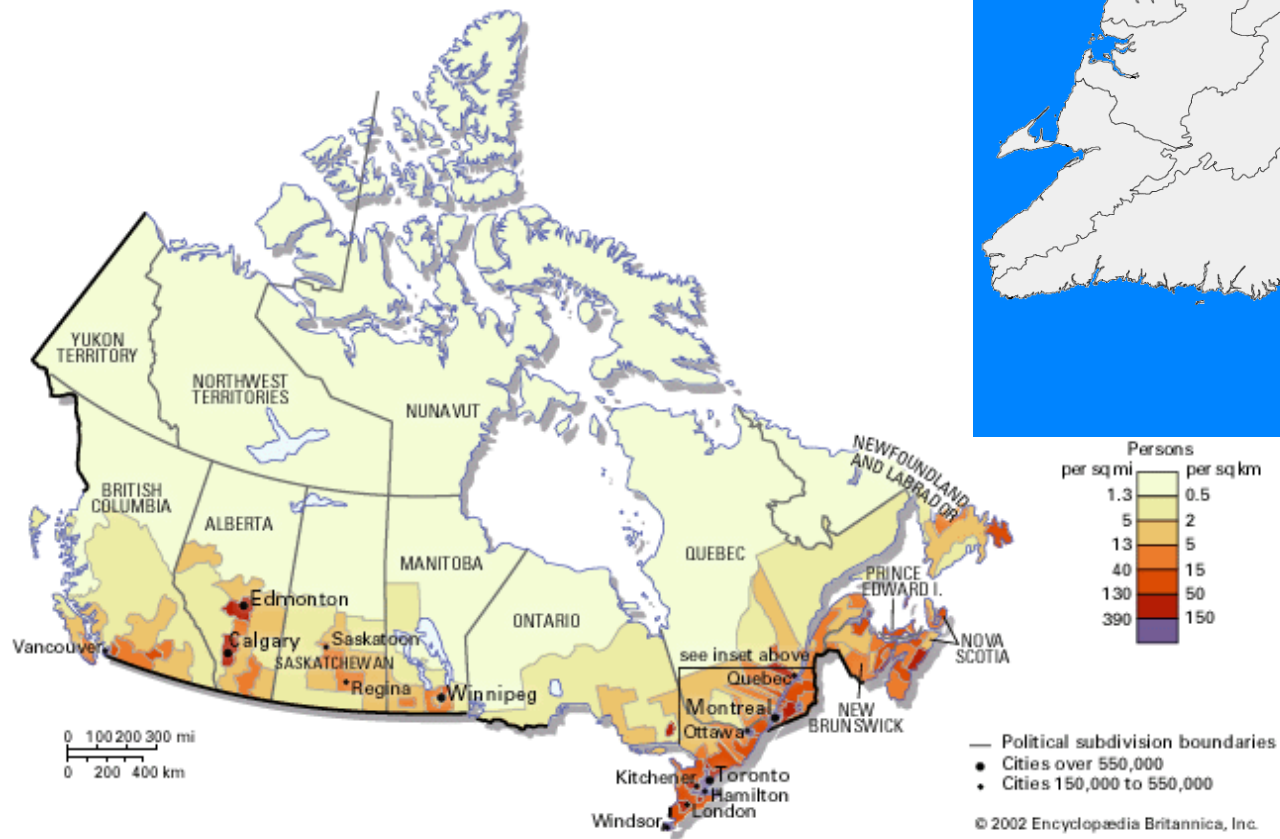
Getting Started Online Early: Examining the Impact of K-12 Distance Education on Post-Secondary Distance Education Experiences

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NEWFOUNDLAND & LABRADOR, CANADA
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Population Density



Context: Newfoundland and Labrador

- **Larger rural population than Canada as whole**
- **40% population in centres with <1000 people**
- **Most schools considered rural**
- **1/3 of schools designated *necessarily existent***
- **Centre for Distance Learning and Innovation**
 - Web-based delivery of high school courses

Communities: Norman Bay, Pop. ~52



Communities: English Hr. W., Pop. ~670



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Communities: Nain, Pop. ~1,034



Communities: Francois, Pop. ~134



Killick Centre for E-Learning Research



www.killickcentre.ca

Faculty of Education
Memorial University of Newfoundland

KILLICK PROJECT FOR E-LEARNING RESEARCH
A COMMUNITY-UNIVERSITY RESEARCH ALLIANCE

- **SSHRC CURA - 8 studies in total**
- **Overall goals:**
 - **Build capacity and increase e-learning research activity**
 - **Facilitate knowledge exchange in e-learning**

Student Transition Study

Examine and compare the tertiary education and workforce transition experiences of students who take online courses in high school and students who do not

Objective of Current Study

Compare university students who completed online courses in high school with university students who did not:

- **assessment of self-regulatory skills**
- **distance education self-efficacy**
- **expectations of online distance education**
- **perception of online course communications**
- **satisfaction with online courses**

High School Online Learner Characteristics

- High school online learners are very academically capable, highly literate, technologically adept
- Highly motivated, self-disciplined, independent, planning attend university¹
- Choice to participate in high school online learning influenced by a *selection factor or selection bias*^{2,3}

¹Barbour, M. K., & Reeves, T. C. (2009). The reality of virtual schools: A review of the literature. *Computers & Education*, 52, 402–416.

²Crocker, R. (2007). *Distance learning: Access and outcomes*. St. John's, NL: Killick Centre for E-Learning Research.

³Hannum, W. H., Irvin, M. J., Banks, J. B., & Farmer, T. W. (2009). Distance education use in rural schools. *Journal of Research in Rural Education*, 24(3). Retrieved June 18, 2009, from <http://jrre.psu.edu/articles/24-3.pdf>

Online Learning in High School

- Some rural students complete courses only available online
- Some jurisdictions in the U.S. require high school online course
- Skills development from online learning experience
- High school online learning helps some students develop skills that facilitate further learning⁴

⁴Kirby, D., Sharpe, D., Bourgeois, M., & Greene, M. (2010). Graduates of the new learning environment: A follow-up study of high school distance e-learners. *Quarterly Review of Distance Education*, 11(3), 161-173.

Study: Sample and Participants

- Sample of 160 fourth-year undergraduate students
- 127 successfully contacted/interviewed (response rate of 79.4%)
- 56 students (44.1%) had completed high school online courses
- 71 students (55.9%) had not completed high school online courses
- All students completed one or more university online courses

Study: Survey Instrument

- Self-regulatory skills - 4 items⁵
- Distance education self-efficacy - 12 items⁵
- Online self-regulatory learning behaviors⁶
 - ❖ Self-evaluation (of learning) - 4 items
 - ❖ Goal setting - 5 items
 - ❖ Environment structuring - 4 items
 - ❖ Time management - 3 items

⁵Holcomb, L., King, F., & Brown, S. (2004). Student traits and attributes contributing to success in online courses: Evaluation of university online courses. *Journal of Interactive Online Learning*, 2(3), 1-17.

⁶Barnard, L., Paton, V., & Lan, W. (2008). Online self-regulatory learning behaviors as a mediator in the relationship between online course perceptions with achievement. *International Review of Research in Open and Distance Learning*, 9(2), 1-11.

Study: Survey Instrument

- Student expectations online courses - 7 items⁷
- Perception of online course communication and collaboration - 11 items⁸
- Satisfaction with distance education – 9 items⁹

⁷House, L., Weldon, R., & Wysocki, A. (2007). Student perceptions of online distance education in undergraduate agricultural economic programs. *Journal of Agricultural and Applied Economics*, 39(2), 275-284.

⁸Barnard, L., Paton, V., & Rose, K. (2007). Perceptions of online course communications and collaboration. *Online Journal of Distance Learning Administration*, 10(4), 1-10.

⁹Walker, S. L. (2005). Development of the Distance Education Learning Environments Survey (DELES) for higher education. *The Texas Journal of Distance Learning*, 2(1), 1-16.

Data Analysis

Variable	Mean Scores		
	Distance Courses in High School	No Distance Courses in High School	Total
Self-Regulation $\alpha=.706$	1.97	1.94	1.95
Distance Education Self-Efficacy $\alpha=.880$	2.16	2.19	2.18
Self-Evaluation $\alpha=.724$	2.40	2.54	2.47
Goal Setting $\alpha=.820$	2.03	2.02	2.03
Environment Structuring $\alpha=.869$	1.76	1.81	1.79
Time Management $\alpha=.710$	2.54	2.45	2.49

Data Analysis

Variable	Mean Scores		
	Distance Courses in High School	No Distance Courses in High School	Total
Distance Education Expectations $\alpha=.843$	2.68	2.63	2.65
Perception of Distance Course Comm. and Collaboration $\alpha=.858$	2.42	2.59	2.51
Satisfaction with Distance Education $\alpha=.910$	2.50	2.50	2.50

Data Analysis

- Groupwise comparisons via ANOVAs:
 - ❖ no significant differences on any of the composite measures

Discussion

- Self-regulatory learning behaviors, attitudes, expectations similar across groups
- No evidence that high school online learners were advantaged or superior to other university students
- This is contrary to the claims made by some proponents of online learning at the secondary level

Discussion

- Prior-high school online learning experience does not necessarily indicate that students:
 - ❖ are more prepared for distance learning;
 - ❖ have greater affinity for it; or
 - ❖ have more developed/superior skills that advantage them.

Thank you!

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