

The logo features three overlapping circles in shades of blue, orange, and red. A black horizontal oval is centered over the intersection of these circles, containing the text "UPEI Multidisciplinary Graduate Research Conference" in white.

UPEI Multidisciplinary Graduate Research Conference

Emerging Scholars: Illuminating Graduate Research

University of Prince Edward Island
August 6 to 8, 2015

UMGRC chairs:

Brittany Jakubiec (Chair)
Hannah Gehrels (Co-Chair)
Valerie Campbell (Co-Chair)

Pre-conference speaker:

Jim Groom (Domain of One's Own founder)

Keynote speaker:

Dr. Theresa Bernardo (Michigan State University; UPEI '89 Alumnus)

UMGRC planning committee members:

Dr. Brian Wagner, Dr. Pedro Quijon, Dr. Jane Preston, Dr. Colleen MacQuarrie, Dr. Laurie Brinklow, and Grace McCourt.

Workshop facilitators:

Leslie Cudmore, Dr. Brian Wagner, Dr. Bonnie Stewart, Dr. Julie Bull, Megan MacKenzie, Joy Knight, Dr. James Moran, Dr. Jane Preston, Dr. Brandi Bell, and Dr. Tracy Deyell.

Special acknowledgements:

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Finally, a special thank you to Dr. Robert Gilmour, Colleen Gallant, and the Office of Research Services.

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 #UMGRC

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Pre-Conference Presentation, August 5 2015

Information

We are excited to announce that Jim Groom ([@JimGroom](#)), the founder of Domain of One's Own, will be a special pre-conference speaker on August 5, 2015.

Taking Control of Identity Online: Digital Agency in the 21st Century

7:00 pm, Wednesday August 5, 2015 - Location: KCI 104

What kinds of questions and opportunities does the open web raise for scholars? How can universities best support academic identity development and open web research among graduate students, faculty, and affiliated scholars?

The University of Mary Washington in Virginia has been providing students, faculty, and staff with an innovative, web-based platform that enables them to own, manage, and migrate the digital work they create over the course of their academic careers. The initiative, called Domain of One's Own, recognizes that codifies the importance of digital agency for each and every learner on campus, and provides the means of enabling them to truly inhabit the web at scale. The platform undergirding the pioneering work of Domain of One's Own is the open web and it provides the backbone for a broader, curricular-wide push for cross-disciplinary digital influence.

In a session open to the campus, the public, and the UPEI Multidisciplinary Graduate Research Conference, Jim Groom (founder of Domain of One's Own), takes up questions of identity and agency for 21st century higher education. An engaging and internationally recognized keynote speaker, Jim will explore strategies and challenges for scholars looking to take control of their identity online.

UMGRC Workshops, August 6 2015
MacDougall Hall (MCDH)
9:00 am – 3:45 pm

Information

Workshop sessions are open to the entire UPEI community, including undergraduate and graduate students, faculty, and staff. Registered UMGRC graduate student presenters will receive complimentary lunch at the Wanda Wyatt. Others wishing to have lunch can do so, and will be required to pay the special rate (\$9.25, taxes included). Our registration table for UMGRC presenters will be open Thursday, Friday, and Saturday from 8:30 until 11:30 am (Louis W MacEachern Market Street, MacDougall Hall).

Schedule

8:30 – 11:30 am	UMGRC Registration	Grace McCourt	Louis W MacEachern Market Street (MCDH)
9 – 10:15 am	<p><i>Workshop A – Leslie Cudmore – MCDH 243</i> Successful Scholarship Applications (Chair: Brittany Jakubiec)</p> <p><i>Workshop B – Dr. Brian Wagner – MCDH 246</i> Mentorship and Supervision in Graduate School (Chair: Kate Liu)</p>		
10:30 – 11:45 am	<p><i>Workshop A – Dr. Bonnie Stewart – MCDH 243</i> Becoming a Networked Scholar (Chair: Hannah Gehrels)</p> <p><i>Workshop B – Dr. Julie Bull – MCDH 329</i> A “Two-Eyed Seeing” Approach to Research Ethics: An Indigenous Perspective (Chair: Valerie Campbell)</p>		
<p>11:45 am – 12:45 Lunch at Wanda Wyatt</p>			
1 – 2:15 pm	<p><i>Workshop A – Megan MacKenzie – MCDH 329</i> E-Portfolios for Career Development (Chair: Kris Barnes)</p> <p><i>Workshop B – Joy Knight & Dr. James Moran – MCDH 246</i> Ethical Considerations for Research (Chair: Hannah Gehrels)</p>		
2:30 – 3:45 pm	<p><i>Workshop A – Dr. Jane Preston – MCDH 243</i> The Publication Process: Why, Where, When, and How? (Chair: Brittany Jakubiec)</p> <p><i>Workshop B – Drs. Brandi Bell & Tracy Deyell – MCDH 246</i> Life After Graduate Studies/Life As A Post-Doc (Chair: Valerie Campbell)</p>		

UMGRC Day 1, August 7 2015
MacDougall Hall (MCDH)

Information

Presentations are open to the entire UPEI community, including undergraduate and graduate students, faculty, and staff. UMGRC presenters will receive complimentary lunch at the Wanda Wyatt. Others wishing to have lunch can do so, and will be required to pay the special rate (\$9.25, taxes included).

Schedule, Friday August 7

Time	Activity	Presenters	Location
8:30 am – 11:30 am	UMGRC Registration	Yemi Olajide Laurie Brinklow	Louis W MacEachern Market Street (MCDH)
9:00 am – 9:10 am	Welcome & Introduction of Keynote	Dr. Alaa Abd-El-Aziz, John Rix, Brittany Jakubiec, Hannah Gehrels	MCDH room 242
9:10 am	Keynote Speaker	Dr. Theresa Bernardo	MCDH room 242
10 – 10:15 am	Coffee Break	Chartwells	
10:15 am – 11:30 am Session 1 MCDH room 243 Chair: Brittany Jakubiec			
<p>1 - A study of the risk factors of male partner violence against disabled women, Reyhaneh Golestani (UNB)</p> <p>2 - Imperfect interventions: An evaluation of challenges faced in the research and implementation of batterer intervention programs, Junot Castelyn (UNB)</p> <p>3 - Discourses of motherhood and childlessness in Bangladeshi print media and fertility centres, Shahina Parvin (University of Lethbridge)</p>			
10:15 am – 11:30 am Session 2 MCDH room 246 Chair: Casey Burkholder			
<p>1 – Muslim women's experience in integrating into Canadian culture during a study exchange, Khulud Alotaibi (Mount Saint Vincent University)</p> <p>2 – Chinese students' perceptions of factors influencing their learning and acculturation inside and outside the classroom during a rural Canadian English for Academic Purposes program, Sherry Neville-MacLean (STFX)</p> <p>3 – Perceptions of campus environment among university students in male and female dominated fields of study in Malaysia, Bahar Haghghat (Memorial University)</p>			

11:30 am – 12:15
Lunch at Wanda Wyatt

12:30 – 2 pm
Session 3 MCDH room 242 Chair: Jennifer Whittaker

- 1** – Mi'kmaq diet in the early historic period: New radiocarbon dates and human stable isotope data from Prince Edward Island, Alison Harris (Memorial University)
- 2** – Evaluation of biochar on reducing nutrients leaching from soils in Nova Scotia, Rujun Yang (Dalhousie University)
- 3** – Reclaiming histories of enslavement in the Maritime Atlantic: The history of Mary Prince and historic pine timber, Margot Maddison-MacFadyen (Memorial University)
- 4** – From source to tap: Developing a community-based monitoring program for drinking water supplies in the Indian Bay watershed, Stephen Holisko (Memorial University)

12:30 – 2 pm
Session 4 MCDH room 243 Chair: Kiki Tanfara

- 1** – Science-informed policies: How matrix modeling can help invasion management decisions, Hannah Gehrels (UPEI)
- 2** – Exploring the impact of an invasive crab on a declining population of Irish moss in a marine protected area, Paula Tummon Flynn (UPEI)
- 3** – Claiming green to earn green: China solidifying environmental laws to secure economic monopoly in uninhabited islands—Case study of Fangji Island, China, Xiaotong Liang (UPEI)
- 4** – Geomorphology, sedimentology, and sensitivity to petroleum contamination in coastal systems in Newfoundland, Kristie Duncan (Memorial University)

2:15 – 3:30 pm
Session 5 MCDH room 243 Chair: Hannah Gehrels

- 1** – Academic motherhood: Silver linings and clouds, Brittany Jakubiec (UPEI)
- 2** – Understanding dynamics: A relational model's insight, Paul Jalbert (Laurentian University)
- 3** – Adopting an intersectional framework in the study of immigrant women's health: A case report, Nasim Khatibsemnani (University of Ottawa)

2:15 – 3:30 pm
Session 6 MCDH room 246 Chair: Robert Deziel

- 1** – The role of heme regulatory enzymes in cardiomyocytes under stress, Ashley Eadie (Dalhousie University)

- 2** – Risk factors for injury and mortality of broiler chickens during handling and transportation in Atlantic Canada, Ketan Dulal (UPEI)
- 3** – Integrative risk governance: A case study of the Ebola virus disease, Temitope Onifade (Memorial University)

3:45 – 5 pm

Session 7 MCDH room 328 Chair: Laurie Brinklow

- 1** – Teacher educators' roles in supporting pedagogical innovations, Kellie Baker (Memorial University)
- 2** – Can eight weeks of recreational physical activity improve balance measures in individuals with Parkinson's disease? Kirat Shukla (UNB)
- 3** – Shifting paradigms: Variation and leitmotifs in the Final Fantasy XIII trilogy, Alexander Simon (University of Victoria)

3:45 – 5 pm

Session 8 MCDH room 329 Chair: Selvi Roy

- 1** – The contribution of emotion regulation to the development and maintenance of loneliness, Katie O'Connell (UNB)
- 2** – A qualitative study of self-determination and academic outcomes in post-secondary students with disabilities, Robyn Young (UNB)
- 3** – Female students with acquired brain injury: Experiences in university, Kendra Gottschall (STFX)

6:00 pm BBQ Social (with cash bar)

7:30 pm Musical Entertainment by Ripped Paper
Lawn in Front of MacDougall Hall

If you plan to attend the BBQ, you must register in advance on our EventBrite page.

If you wish to see Ripped Paper perform at 7:30 pm, we will be opening the doors at 7 pm for the musical entertainment portion of the evening (admission is free). There will be a cash bar open from 6 pm until 9:30 pm.

The BBQ and performance by Ripped Paper are both family- and child-friendly events.

Schedule, Saturday August 8

Time	Activity	Presenters	Location
8:30 am – 11:30 am	UMGRC Registration	Becca Coles Naomi-Alan Robbins	Louis W MacEachern Market Street (MCDH)
9 – 10:15 am Session 9 MCDH room 328 Chair: Jonathan Lichtenberger			
<p>1 – Exploring the influence of oral health literacy and oral health chronic disease knowledge on older adults' oral care behaviors, Alison MacDougall (UPEI)</p> <p>2 – Ruthenium complexes for electrocatalytic reduction of CO₂, Layla Althubyani (STFX)</p> <p>3 – Determining the relationship between eye movement patterns and neurological mechanisms that affect postural control post-concussion, Laura Carvalho (UPEI)</p>			
9 – 10:15 am Session 10 MCDH room 329 Chair: Kellie Baker			
<p>1 – Dancing between old worlds and new: The 'Land of Israel' Jewish body from a dancer's perspective, Gdalit Neuman (York University)</p> <p>2 – Children's picture books and Island themes, Stephanie Douglas (UPEI)</p> <p>3 – Exploring the language of mathematics in three preschool classrooms, Gabriela Sanchez (UPEI)</p>			
10:15 – 10:30	Coffee Break	Chartwells	
10:30 – 11:30 am Poster Session Market Street, MCDH			
11:30 am – 12:15 Lunch at Wanda Wyatt			
12:30 – 1:45 pm Session 11 MCDH room 243 Chair: Hsiao-Yu (Kathren) Liu			
<p>1 – Perspectives of mathematics education, Yemi Olajide (UPEI)</p> <p>2 – Universal pedagogical actions in French immersion classrooms, Kathy Hennessey (UNB)</p> <p>3 – A research assistant's view of assessing an arts-rich curriculum program, Bahar Haghghat (Memorial University)</p>			

12:30 – 1:45 pm

Session 12 MCDH room 246 Chair: Brittany Jakubiec

- 1** – Students' agentic engagement within project-based learning, Selvi Roy (UPEI)
- 2** – Cultural perspectives on education in Prince Edward Island: A focus on the culture of large-scale assessment, Lizzie (Yan) Yan (UPEI)
- 3** – A review of stock pinning and its potential causes, Anthony Migiro (UPEI)

12:30 – 1:45 pm

Session 13 MCDH room 242 Chair: Becca Coles

- 1** – Food security and the provincial school system, Michael Zimmerman (UPEI)
- 2** – The ethics of conducting youth research in digital spaces: A scoping review, Valerie Campbell (UPEI)
- 3** – Exploring positionality in an Aboriginal research paradigm: An outsider perspective, Michele Moffat (UPEI)

2 – 3:15 pm

Session 14 MCDH room 328 Chair: Hannah Gehrels

- 1** – “Lost in the system”: Applying an intersectional analysis to explain the position of the homeless mentally ill in on US city's mental health system, Tracy Anne Deyell (UPEI)
- 2** – An interpretative phenomenological analysis of the experience of students requiring tertiary level behavior support within inclusive high school settings, Kiki Tanfara (UNB)
- 3** – Negotiating culture: The impacts of colonized education on culture and identity in Dominica, Mark Currie (UPEI)

2 – 3:15 pm

Session 15 MCDH room 329 Chair: Valerie Campbell

- 1** – Influencers of career development in New Brunswick Aboriginals, Mike Hennessey (UNB)
- 2** – Active Neighborhoods Canada: Evaluating participatory urban planning approaches in Peterborough, Ontario, Tessa Nasca (Trent University) and Brianna Salmon (Manager of Transportation and Urban Design Programmes, GreenUp)
- 3** – Whose Hong Kong? Cellphilmimg and civic engagement with ethnic minority youth, Casey Burkholder (McGill University)

3:30 pm – 4:00 pm

Wrap Up Event

MacDougall Hall, room 242

Poster Presentations, Saturday August 8 2015
 Louis W MacEachern Market Street, MacDougall Hall
 10:30 am - 11:30 am

Schedule

P1 Improved detection of a fish virus with a segmented genome by real-time RT-qPCR, Jocelyn Ginette Pérez Lazo (UPEI)
P2 Design of novel organoiron complexes with potential biological activities, Ebtehal El-Ghezlani (UPEI)
P3 Dealing with algae bloom patterns in Mattatall Lake (Nova Scotia), Kateryna Hushchyna (Dalhousie University)
P4 Constructional alternation between VCS and OFS in Mandarin Chinese, Yanxiao Ma (Memorial University)
P5 The perceptions of Korean parents in a Canadian elementary offshore school, Kris Barnes (UPEI)
P6 Aerobic methane emissions from pea plants grown and incubated under different experimental conditions, Awatif Abdulmajeed (Dalhousie University)
P7 Children's lunch-time food group intakes according to food source: Changes over 5 years of school nutrition policy implementation, Teri McComber (UPEI)
P8 Economic Immigrant Parents in PEI: Their involvement in education, Hsiao Yu (Kathren) Liu (UPEI)
P9 "I like big books": Students' preferences for print and academic characteristics at the Royal Military College, Amy Peverley (Trent University)
P10 Parents' perspectives: Non-francophone parents of children in francophone schools, Mary MacPhee (UPEI)
P11 Microbial diversity of buckwheat rhizosphere in wireworm-infested and non-infested soils using metagenomics, Aisha Alkhnajari (UPEI)
P12 Tracking Atlantic halibut (<i>Hippoglossus hippoglossus</i>) in the Gulf of St. Lawrence, Travis James (UPEI)
P13 Nitrogen cycling during the legume and grass forage phase of a three year potato rotation, Jennifer Whittaker (Dalhousie University)
P14 The history of Irish moss (<i>Chondrus crispus</i>) in Basin Head MPA and the potential role of the green crab (<i>Carcinus meanas</i>) in its decline, Paula Tummon Flynn (UPEI)
P15 Cardiac biomarker profiles in dogs with naturally-occurring pre-capillary pulmonary hypertension, Jonathan Lichtenberger (UPEI)

P16 Preliminary assessment of a novel 14-day ambulatory ECG monitor (Zio® Patch) in dogs, Jonathan Lichtenberger (UPEI)

P17 Hydroelectric development along the Lower Churchill River and the perceived influences on social relationships and how these relationships affect the emotional health of NunatuKavut adults, Marissa Ley (Dalhousie)

P18 Intravenously to orally administered cancer drugs: A review of the paradigm shift, issues and the Canadian perspective, Reta Holland (UPEI)

Abstracts

Aerobic methane emissions from pea plants grown and incubated under different experimental conditions

Awatif Abdulmajeed
PhD of Biology Science
Dalhousie University

Recent studies have shown that stressed plants emit methane (CH₄). However, there has been little information regarding the effects of multiple environmental factors, such as temperature, ultraviolet-B (UVB) radiation and watering regime, on CH₄ emissions. In addition, none of these studies have specifically focused on CH₄ emissions from plants incubated under different experimental conditions. We determined CH₄ emission rates from leaf of pea plants grown and incubated under different conditions. Pea (*Pisum sativum* L. var. 237J Sundance) plants were grown under two temperature regimes (22/18°C and 28/24°C; 16 h light/ 8 h dark), two levels of UVB radiation [0 (zero) and 5 (ambient) kJ m⁻² d⁻¹] and two watering regimes (well watered and water stressed) for two weeks. Leaf samples from each condition were incubated for two hours under four conditions: (22/18°C at UVB 0), (22/18°C at UVB 5), (28/24°C at UVB 0) and (28/24°C at UVB 5). Then, CH₄ emission rates were measured. We found that higher growth temperatures significantly increased CH₄ emission. Also, there were significant differences in leaf CH₄ emission rates among incubation conditions. Overall, methane emission rates were highest from leaves incubated under 22/18°C at UVB 0 and lowest from leaves incubated under 28/24°C at UVB 5. Considering both growth and incubation conditions, the methane emission rates were highest from water-stressed plants grown under 28/24°C at UVB 0 and incubated under 22/18°C at UVB 5, and lowest from well-watered plants grown under 22/18°C at UVB 5 and incubated under 28/24°C at UVB 0.

Keywords: Aerobic methane emission, high temperature, stress factors, ultraviolet-B radiation, water stress.

Microbial diversity of buckwheat rhizosphere in wireworm-infested and non-infested soils using metagenomics

Aisha Alkhnajari
Master of Science
University of Prince Edward Island

Agricultural plant production is the most vital resource to feed the world growing population. Currently, increase yield and sustainability of crop production has become a challenge due to climate change, diseases and pests affecting crop yields and

value. To increase the yield of basic food, additional inputs for crop production are needed and new technologies are essential for managing crop pests and diseases. Significant crop value losses have been attributed to wireworm as a pest in Canada where wireworm is becoming a serious problem for growers in different regions. The main option for growers to control wireworm is chemical pesticides, which affect negatively the plant itself as well as the environment. For decades now, crop rotation has been regarded as another option for an environmentally friendly, economically sustainable and effective IPM system against pests and diseases, including wireworm. Nonetheless, the mechanism by which crop rotation fights against wireworm is unknown. The current study was undertaken to understand the role of the microbial diversity of buckwheat rhizosphere in comparison with other rotation crops. Here, we show that buckwheat rhizosphere triggers 36 unique microbial species.

Keywords: Buckwheat, soil microbial diversity, rhizosphere, wireworm, metagenomics, 16S rRNA

Ruthenium complexes for electrocatalytic reduction of CO₂

Layla Althubyani
Master of Science
St. Francis Xavier University

Homogeneous and heterogeneous catalysts involving transition metals have been shown to exhibit electrocatalytic activity in the reduction of CO₂ to useful fuel products such as carbon monoxide, formic acid, formaldehyde, methanol, and methane. These catalysts do this by coordinating CO₂ while in a reduced state, subsequently transforming it, through a series of electron-and proton-transfer steps. In my project, I am interested in coordination complexes that involve ligands such as DAPA and BIMPY because complexes incorporating these kinds of ligands have accessible reduction potentials and similar materials have been shown to be active in CO₂ reduction experiments. In my work, DAPA and BIMPY were coordinated Ru centers to create materials that might someday serve useful roles in energy storage. The catalyst centers were immobilized on electrode surfaces as metallopolymers and monomer complexes were also studied in solution. The synthesis and characterization of the materials as well as some electrochemical results will be discussed.

Keywords: Electrocatalysis, CO₂, sustainable energy, ruthenium

Muslim women's experiences in integrating into Canadian culture during a study exchange

Khulud Alotaibi
Master in Applied Human Nutrition
Mount Saint Vincent University

The Global movement of people is increasing as individuals relocate to other countries to study. As a female international student from Saudi Arabia studying nutrition at the Master's level in Canada, I have faced both challenges and opportunities as I attempt to adopt and adjust to Canadian culture. This paper explores my female Muslim identity in Canada and sheds light on my experience in socializing with Canadians and integrating into their culture. Autoethnography was used as a method to explore my lived experiences. Several metaphors were used to express my experience on an emotional and in-depth level. Three major themes emerged from my work: constructed social barriers, sharing food as a powerful social mediator, and the impact of integration and socializing as positive mental health and well-being enablers. The conclusion proposed is that through reflexivity, individuals could further know about themselves. In this presentation, I share my journey within the Canadian culture so others can benefit from my learning.

Keywords: Socializing, integration, Muslims woman experience, autoethnography

Teacher educators' roles in supporting pedagogical innovations

Kellie Baker
Interdisciplinary PhD
Memorial University of Newfoundland

The purpose of this research is to consider ways physical education (PE) teacher educators can reconsider and recontextualise student perspectives about learning PE subject content through the lens of Models-Based Practice (MBP). Occupational socialisation theories suggest that a significant challenge exists in disrupting traditional approaches to teaching physical education. To unpack the socialising experiences of their students, teacher educators have a responsibility to examine their own role in perpetuating traditional practices and consider ways to support innovation in a sustainable manner. During four 13-week courses across three academic terms I used self-study of teacher education practice methodology to examine and articulate the ways in which I supported students' learning in and about MBP as a novel approach to the delivery of PE content. Data consisted of multiple qualitative sources: individual and focus group interviews with students; course artifacts such as student journals and course work; reflective teacher journals; and conversations with critical friends/colleagues. Preliminary analyses showed some students viewing MBP as a positive pedagogical approach after only one relatively short 13-week course. However, students reiterated the view that increased exposure to MBP over several courses leads to increased confidence and a greater likelihood of future

implementation. This suggests the need for a program-wide approach if adoption of innovative pedagogy is the goal. This study is important because it can provide insights into how teacher educators can be catalysts for change in their own practices, the future practices of post-secondary students, as well as their programs.

Keywords: Physical education, teacher education, self-study, models-based practice

The perceptions of Korean parents in Canadian elementary offshore school

**Kris Barnes
Master of Education
University of Prince Edward Island**

With regard to South Korea, scholars and government officials agree that student success reflected through high school grades and impressive Programme for International Student Assessment (PISA) scores are, in part, a result of parental influence and a reflection of Korean parents' educational beliefs. However, additional studies have shown Korean parents' obsession with education can be unhealthy for their children. This study is about parent involvement in a South Korean Offshore school. Offshore schools, not to be confused with international schools, are a relatively new educational phenomenon in South Korea and throughout parts of Europe, South America, and Asia. Canadian provinces have established 115 offshore schools located around the world, serving over 50,000 students in 22 countries. Canadian offshore schools offer South Korean parents and students access to Western education that was once limited to a select few of Korea's most affluent, influential, and elite families who, due to privilege, were able to attend international schools in South Korea. The purpose of this study is to document the reasons and motivating factors why Korean parents enroll their elementary-aged children in an offshore British Columbia school located in Seoul, South Korea. Educational expectations, parental behaviors, Korean culture, and Korean society will also be examined in this case study. The poster representing this study includes the introduction, literature review, and the research methodology related to the research.

Keywords: South Korea, offshore school, British Columbia, parent, education

Whose Hong Kong? Cellphilmimg and civic engagement with ethnic minority youth

Casey Burkholder
PhD Educational Studies
McGill University

The proposed paper outlines an empirical study on ethnic minority young people and civic engagement in contemporary Hong Kong. Combining ethnographic and participatory visual research, the study illuminates ethnic minority young people's participation in and reaction to Hong Kong's Umbrella Revolution, and how concepts of self and citizenship are negotiated and represented by ten participants (four females and six males). Participatory visual methodologies, specifically drawing on the use of cellphilm (participatory video using cellphones) (Dockney, Tomasselli & Hart, 2010; Mitchell, 2011; Milne, Mitchell, & De Lange, 2012) have been employed as a tool to encourage these youth to document notions of resistance, sense of belonging, and civic engagement. Although Hong Kong's ethnic minorities are typically portrayed in the media as "culturally alien and linguistically and socially handicapped," (Shum, Gao, & Tsung, 2011, p. 6), these youth have engaged with the cellphilm method to speak back (hooks, 1994; Mitchell & De Lange, 2013) to these representations by creating their own critical media texts (Rogers, 2014). One clear finding from the project is that cross-cultural exchanges and conversations about what it means to be a Hong Kong citizen—regardless of racial, cultural, or linguistic practices—are playing out in digital spaces and are assisted by the cellphilm—even 6 months after the physical occupations of the Umbrella Revolution. These interactions continue to play out across digital spaces, and inform public dialogue about electoral reform. Not enough is known about Hong Kong's ethnic minority young people's sense of self and citizenship, and yet it is so important to deepen an understanding of the issues in the wake of the Occupy Central movement.

Keywords: Citizenship, ethnic minorities, Hong Kong, participatory visual research, youth

The ethics of conducting youth research in digital spaces: A scoping review

Valerie Campbell
PhD Educational Studies
University of Prince Edward Island

Most young Canadians live a significant portion of their lives online; this pervasive access to the Internet has created new spaces for research with youth and, arguably, new ethical challenges for researchers. Current literature in this area is scarce and noticeably lacking youth voices. The literature does not examine how young people are themselves reacting to privacy, anonymity, and confidentiality encountered in being and/or being researched in digital spaces. There is, therefore, a pressing need for innovative research into the ethics of online research with youth and youth life online. I will present the results of a scoping literature review and outline my dissertation

project in which I will explore the ethical concerns of youth who are living online and/or participating in online research as well as the ways in which researchers and research ethics boards are understanding and addressing the ethics of online research with youth.

Keywords: Ethics, youth, digital research

Determining the relationship between eye movement patterns and neurological mechanisms that affect postural control post-concussion

**Laura Carvalho
Master of Science
University of Prince Edward Island**

The Center for Disease Control and Prevention estimates over 300,000 sport-related traumatic brain injuries occur annually in North America. Concussions constitute one third of all injuries in university athletes, which may cause devastating neurological deficiencies. The study aims to investigate a new method of evaluating balance recovery based on eye movement and how underlying motor control mechanisms responsible for postural control are affected when a neurocognitive task is implemented in athletes post-concussion. This research employs dynamic biomechanical and motor control assessment methods paired with neurocognitive stimulation to replicate environmental relevancy encountered by athletes during game play. These methods will be used to distinguish if eye movement is correlated with neurological mechanisms that affect diminished postural control following a concussion. The main objectives of this research are: 1) to establish a relationship between dynamic balance activities and combined neurocognitive tasks and 2) to determine the effects of concussion on dynamic balance control, eye movement, and neurocognitive performance. Measurements of balance control will be quantitatively measured using force platform technology (NDI TrueImpulse, ON, CA) during dynamic balance assessments. The participants will be wearing eye-tracking glasses (Applied Science Laboratories MobileEye-XG Glasses, Bedford, MA), which will record eye movement patterns and gaze. During the dynamic assessment, the Hess-Lancaster test will be administered to observe peripheral gaze and saccadic eye movement. The Van Orden Start test will also be used to analyze skews of spatial behavior brought by visual adaptations by internal and external visual constraints. The information gained from this research will provide valuable information for determining post-concussion recovery of athletes. This knowledge will lead to future studies that will determine the recovery timeline for concussion and ultimately play a key role in developing guidelines for return to play that accommodate longer recovery periods.

Imperfect interventions: An evaluation of challenges faced in the research and implementation of batterer intervention programs

**Junot Castelyn
MEd Counseling
University of New Brunswick**

The research around group batterer intervention programs (BIPs) has yielded little conclusive evidence of efficacy and effectiveness (Eckhardt, Murphy, Black, & Suhr, 2006; Murphy & Ting, 2010). A key problem in the research is the use of violence cessation and recidivism, as opposed to violence reduction, as an outcome measure (Babcock, Green, & Robie, 2004). This session will review the literature to date on group interventions for male violence and aggression and will reference an on-going qualitative research initiative evaluating the efficacy of a Canadian group intervention aimed at self-awareness and understanding of male aggression to prevent intimate partner and family violence. Although the research is in its early stages, the information presented aims to educate and familiarise mental health professionals and researchers with the challenges involved in working with this topic. Current models of treatment, and suggestions for improving the effectiveness of such interventions will also be discussed. This is a topic in which research is timely, necessary and warranted given the apparent lack of success in addressing the pervasive problem of domestic violence.

Keywords: Batterer intervention, intimate partner violence

**Negotiating culture: The impacts of colonized education on culture and identity in
Dominica**

**Mark Currie
Master of Arts (Island Studies)
University of Prince Edward Island**

In Island Studies, the foci of research can be insular – investigating issues that are unique to small islands – but can simultaneously be global, with island nuances playing crucial parts in an island's interactions with the rest of the world. Using ethnographic research, I explore education, which many may see as global, but focus on impacts of colonized education – an education system that began during a colonial period and with remnants of the system still seen in the postcolonial era – on the island of Dominica. More specifically, I look at the relationship between colonized education and Dominican island(er) culture and identity. Rather than make suggestions that colonized education bolsters or berates local culture and/or identity, the analysis for this paper seeks to explore the phenomenon of cultural negotiation as a result of education. This suggests that education has the ability to position an individual to choose life paths that may favor traditional island culture or colonial culture or, perhaps, a combination of the two. That cultural negotiation occurs is not in question. It is thought here that it is safe to assume that cultural negotiation is inevitable. What is

unknown, however, is how cultural negotiation took and takes place in Dominica, especially considering the variety of distinctive cultural and geographical influences of the island. The questions that arise from the investigation are those of realities of and consequences to island culture and identity when one considers education's impacts on notions of nationalism, transnationalism, and cosmopolitanism.

Keywords: Dominica, education, cultural negotiation, colonialism, islands

“Lost in the system”: Applying an intersectional analysis to explain the position of the homeless mentally ill in one US city’s mental health system

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In the struggle to manage or reduce homelessness, many North American cities find the homeless mentally ill population especially troubling. This research unpacks the complexity of the homeless mentally ill in one U.S. city. Applying Winkler and Degele's (2011) multi-level intersectional analytic framework to qualitative data from observation fieldnotes from police ride-alongs and interviews with police, jail employees and community mental health providers, I consider the mental health system as it relates to the homeless mentally ill population. I find that the homeless mentally ill are dually disadvantaged at the intersections of mental health and homelessness: their homelessness puts them at a disadvantage in their mental illness and their mental illness puts them at a disadvantage in their homelessness. Ultimately, the homeless mentally ill, who are amongst the most desperate for mental health services, are missed due to their location at the intersection of these “difficult” populations. Further, the locations of the gaps in the mental health system are not happenstance. On the contrary, individuals located at these intersections across organizational silos of the mental health system, many of whom are “lost in the system”, are in this situation as a result of larger cultural and structural norms in play at the community, state and federal levels. In order for mental health systems to assist the homeless mentally ill and other target populations, policy and research needs to address the both organizational silos within systems and the needs of patient groups with distinct intersecting statuses across mental illness.

Keywords: Mental health, homeless intersectionality, organizations, qualitative

Children’s picture books and Island themes

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The premise of this paper is to question whether some authors of children's picture books for ages 4-8, can contribute in a unique and meaningful manner to our understanding of island themes such as: 'islandness,' resourcefulness, isolation, community, and resilience, that are found in the 'Literature' of small islands as well as in the discipline of Island Studies. Can children's picture books deliver the same depth of meaning within the island story narrative with limited text and visuals, fully engaging both child and adult reader? To answer these questions I will analyse the lyricism, poetry and imagery of three children's picture books, each one exploring a different theme of 'island' and of 'islandness.' I will then explore and compare these three books to the works of 'literature,' by authors who explore the themes of small islands as well as to writers within the field of Island Studies, who also explore the meaning of 'islandness.' This paper will demonstrate that children's picture books can contribute meaningfully to the body of collected works on island themes in literature and in Island Studies, and, that it is an area of study that merits more research, analysis as well as comparative study of the possible differences between how writers of European ancestry and Aboriginal Canadian writers and illustrators of children's picture books handle island and islander themes.

Keywords: Children's literature, 'islandness,' lyricism, Island Studies, art

Risk factors for injury and mortality of broiler chickens during handling and transportation in Atlantic Canada

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A cross-sectional study was conducted to identify risk factors for mortality and injuries of broiler chickens during handling and transport in Atlantic Canada. In Atlantic Canada, loading of broiler chickens for slaughter is done manually. Data were collected by visiting farms during the loading of chickens for transportation to slaughter and from information provided by the slaughter plant. On the visit to the farm during loading, the handling procedures were described and quantified. A modular system where the chickens were caught, carried to a module consisting of several drawers in which the chickens were placed was used. When full, each module was moved by a forklift truck and stacked on a trailer. Environmental recordings (temperature, humidity, sound and light) were made outside the barn, before and after the loading, and on each floor of the barn during loading. The moisture content of the litter was subsequently determined. The slaughter plant provided information about the trailer, journey, lairage and the following outcome variables: prevalence of

wing and leg injuries and mortality. Descriptive statistics of the predictors and outcome variable will be done and reported. Multilevel modeling with handling event, as a random factor will be conducted to examine relationships between handling and journey risk factors and outcome variables.

Keywords: Broiler chickens, cross-sectional, injuries, mortality and animal welfare

Geomorphology, sedimentology, and sensitivity to petroleum contamination in coastal systems in Newfoundland

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With the projected increase in the expansion of offshore oil production in Newfoundland, the chance for accidental spills increases. Petroleum contamination can occur at various stages from extraction to storage, transportation and distribution leaving coastal areas vulnerable. Previous work assessed over 1400 beaches in Newfoundland and determined 27 locations as high-risk areas. The current project focuses on three sites: Witless Bay, located on the east coast of Newfoundland; and two sites on the west coast, Grand Bay West and Codroy. This study provides a critical look at how petroleum contamination relates to geomorphology and sedimentology, indicating how contamination could impact not only the sites but also the adjacent communities. Site observations were conducted to determine beach morphology, soil permeability, changing beach profile and current dynamics among others. Findings from this study revealed the Witless Bay coastal system to be dominated by high-energy and reflective conditions. Petroleum could more easily seep through the mixed gravel sediment but due to its high energy, would be able to self-clean more effectively. On the West coast, Grand Bay West consists of a medium sandy beach and has a reflective energy regime with shore-normal sediment transport, very little slope and medium sands. It is medium to highly sensitive to petroleum contamination due to its mix of sedimentology, low energy and exposure to the open ocean. The coastal system in Codroy is organically productive consisting of a salt marsh, fine sandy beach with a dissipative energy regime. The marsh is sheltered from the open ocean making it less likely for an event to occur but is the most sensitive to contaminants. Given the different physical characteristics, oil longevity will vary between the coastal systems. This study will assist community and industry leaders to prioritize the protection of coastal systems in the event of an oil spill or other contamination event. Determining physical characteristics that contribute to its sensitivity will assist in replicating this study along Atlantic Canada's entire coastline.

Keywords: Geomorphology, coastal systems, sensitivity, petroleum, sedimentology
The role of heme regulatory enzymes in cardiomyocytes under stress

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Heme oxygenase-1 (HMOX1) is the stress-inducible enzyme responsible for heme catabolism and is extensively studied for its therapeutic power in models of cardiovascular disease. However, increasing HMOX1 levels has also been observed to worsen different models of cardiovascular disease. A common feature across cardiovascular disease is hypoxia (low oxygen availability). Understanding how heme is regulated in a hypoxic disease model would allow us to better understand our molecular target and avoid unforeseen side effects in active clinical trials. Hypoxia inducible factors (HIFs) are known to signal the cell's responses when it does not receive enough oxygen to meet its needs. The HIFs are potentially key regulators of the production, transport and breakdown of heme due to heme's role as an oxygen transporter. We hypothesize that HIF1 α HIF2 α are differentially responsible for heme regulation in hypoxia, dependent upon its severity and duration. Our preliminary studies demonstrate the changes in heme regulatory enzyme levels in H9C2 cardiomyoblasts (both differentiated and non-differentiated) in comparison to primary isolation of adult rat cardiomyocytes in severe hypoxia (1% O₂) via western blot protein quantification. Additionally, we demonstrate the heme regulatory enzyme responses of H9C2 cells exposed to severe hypoxia over a period of 7 days as well as quantify hypoxia by fluorescence-activated cell sorting without the use of HIF upregulation as the gold standard. These findings suggest that clinical applications of heme regulatory pathway therapies may differ between cardiovascular patients with short and long-term hypoxia.

Keywords: Heme, hypoxia, cardiovascular disease

Design of Novel Organoiron Complexes with Potential Biological Activities

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Cyclopentadienyl-iron-arene complexes and ferrocene were prepared and examined for their potential biological activities with a focus on chemotherapy of antitumor. Some ferrocenium salts were tested against several types of tumor cells and ascites disease in mice and humans, which showed a significant biological effect ranging from 50% to 100% cure rate. In particular, the chromene family of compounds is an important structural component in natural compounds and has generated great attention in light of their interesting biological activities. Chromene derivatives possess important biological activities such as antitumor, antivasclar, antimicrobial, antioxidant, antifungal, estrogenic, antiviral, anticancer, anti-HIV antitubercular, and anti-inflammatory. This presentation is focused on the synthesis of various new

compounds that composed of iron complexes and 4H-chromenes. The resulting compounds were characterized by spectroscopic and elemental analysis. The biological activities of the new designed compounds will also be studied.

Keywords: Organoiron compounds, ferrocene monocarboxylic acid, chemotherapy, iron complexes, 4H-chromenes, biological activities

Science-informed policies: How matrix modeling can help invasion management decisions

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The management of many species is based on inadequate understanding of their population dynamics. Population matrix models may help fulfill this gap by estimating the likely response of a population to various management scenarios. A relevant example is the management of invasive species which often includes removal programs that aim to reduce or eradicate the population. Predicting the impacts of these removal strategies is difficult because populations can sometimes respond in unpredictable ways. European green crab (*Carcinus maenas*) populations on Prince Edward Island have increased dramatically since they first invaded in the late 1990s. Green crabs have been associated with declines of commercially important clam species, eelgrass beds, and are also known to compete with other native crustaceans. Management is required to control numbers and prevent further spread. We propose that matrix models can be used to help to predict the best green crab removal strategies in order to mitigate this invader's impacts. This presentation will explain how matrix models work in the context of several case studies (e.g. invasive bullfrogs and invasive lionfish), and then discuss how we plan to use matrix models to specifically predict the best management strategies for green crabs.

Keywords: Invasive species, population dynamics, matrix models, wildlife management

A study of risk factors of male partner violence against disabled women

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Given that cultural perceptions regarding marriage are shifting and the pathways to marriage are more complex, scholars interested in marital relationships have recently focused their attention on understanding the attitudes, values, and beliefs that individuals have regarding marital transitions and relationships and how those beliefs

may alter individual and relational behaviours. In this article I have tried to rely on various theoretical approaches to explain marital meaning—particularly the theory of symbolic interactionism as the main explanation, and on the application of the concept of "Marital Paradigm" as the central concept of the study—to create an appropriate model that provides a different explanation for differences in individual's marital paradigms. The model explains the marital paradigm using four groups of factors. My basic idea is that marital paradigm is not the result of one or more fixed and specified factors, but it is the production of encountering four groups of factors including personal, structural, cultural and commutative factors. The model was tested by a secondary analysis—based on dataset from a survey conducted in 2014 in Tehran—and has been confirmed by results of this study. The results show that variables such as religiosity, age, income, marriage duration and gender directly affect the marital paradigms of Iranian people.

Keywords: Marriage, marital meaning, marital paradigm, symbolic interactionism

Female students with acquired brain injury: Experiences in university

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The purpose of this Master of Social Work research was to answer the question, "How has having an acquired brain injury impacted the experience of female students within postsecondary education?" Standpoint feminism is the theoretical perspective used within this research. Narrative and autoethnographic methodologies were utilized in conducting this research. Recruitment of participants was conducted using a snowball sampling method. Semi-structured interviews with five participants were conducted so as to evoke "thick description", and text boxes were interlaced throughout the study to highlight the research's voice as a student with a brain injury. The use of journaling on the part of the researcher played an important role in this study. The findings of this study indicate that brain injury has diverse implications depending upon severity of the injury. Utilization of (dis)Ability resource centres and formal accommodation services on campuses also varied. It was found that students with brain injury navigate post secondary institutions in isolation yet most were eager to connect with fellow students with similar experiences. The results of this study could impact services provided by (dis)Ability resource centres. The importance of advocacy, self-empowerment and obtaining appropriate accommodations was highlighted. Practical recommendations, including challenging negative social implications, advocating for amendments in policy, amending (dis)Ability resource centre practices, assisting in the disclosure of injury to others, addressing the broad social implications of brain injury and working toward building an inclusive educational environment, are derived from this study.

Keywords: Brain injury, (dis)Ability resource centre, postsecondary education, narrative, qualitative

A research assistant's view of assessing an arts-rich curriculum program

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The Rooms is Newfoundland's art gallery, museum, and archives complex in St. John's, Canada. The Chevron Open Minds at The Rooms program is curriculum based and interdisciplinary and takes place over one full school week. It values slowing down and the significance of immersion in an engaging arts-rich learning environment. Each week is developed by the classroom teacher in consultation with the on-site educator. My role is that of a research assistant for a project which investigated the program's impact on children's engagement, sense of confidence, and academic achievement as well as the impact of the program on teachers' practice. Phase One involved an on-line survey of students, teachers, parents, and parent volunteers and a focus group with teachers. Phase Two involved pre and post student surveys to assess the impact on students' attitude and engagement with curricular areas such as science, art, religion, language arts, math and social studies, as well as their attitudes towards the Atlantic Essential Graduation Learnings like citizenship, communication, personal development, problem solving and technological competence. The results of Phase One add to a body of research that focuses on the benefits of experiential learning and the arts. The results of Phase Two (still under analysis) deepen our understanding of the program's impact on student learning. In addition, the impact on teacher practice was surprisingly powerful. Continuous professional development for teachers is of significance for quality arts education in schools, however sustainable changes can occur if experts/artists collaborate with teachers for a long time.

Keywords: Arts-rich learning environments, museum-based programs, teacher professional development

Perceptions of campus environment among university students in male and female dominated fields of study in Malaysia

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Since the early 1980s a large body of research has focused on the relationship between gender and perception of the campus climate among university students. Specifically the concept of “chilly climate” (i.e. unfriendly) has been used to describe how differential treatment in and outside classrooms could disadvantage female students in their academic life. This study examined the perceptions of Malaysian university students in traditionally male and female-dominated fields of study as to what extent perceptions of the campus environment could be explained by self-efficacy and socio-demographic factors. The study was motivated by an interest in finding out if the university environment is as chilly to female students in Malaysia as it has shown to be in some Western societies. Participants were 639 students attending engineering, computer science and nursing in a public university in Malaysia. Participants completed a questionnaire which included: a) personal background and academic information, b) the Campus Environment Scale, and c) General Self-Efficacy (GSE) scale. The findings indicated that regardless of the field of study, female students had higher positive perceptions of the university environment than male students. Final year students perceived the university environment to be less supportive than first year students. There was a significant positive relationship between a sense of self-efficacy and favorable perceptions of the university environment. The policy implications in relation to gender in higher education, as well as the limitations of this study and suggestions for further research will be discussed.

Keywords: Campus climate, women, higher education, self-efficacy

Mi'kmaq diet in the early historic period: New radiocarbon dates and human stable isotope data from Prince Edward Island

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In 1959, the skeletal remains of seven individuals were recovered from an eroding Mi'kmaq burial ground on the north shore of Prince Edward Island. Prior to the repatriation of the remains, researchers in the Department of Archaeology, at Memorial University were permitted by the Scotchfort Mi'kmaq band to take a bone sample from each individual for radiocarbon dating and palaeodietary analysis. With the goal of reconstructing Mi'kmaq foodways, we conducted stable carbon and nitrogen isotope analyses on human bone collagen to determine the contributions of marine and terrestrial protein to the diets of the recovered individuals. Here we present radiocarbon dates, and the stable isotope results from the humans and a selection of archaeological fauna. These data directly indicate that during fifteenth to

seventeenth centuries, the Mi'kmaq relied heavily on marine foods, with only minimal contributions of terrestrial or freshwater protein. The results of the first isotope study conducted on archaeological human and animal remains from Prince Edward Island provide an important comparison to other palaeodietary studies in Atlantic Canada, further improving the understanding of regional and temporal variation in past Mi'kmaq diet and lifeways in the greater region.

Keywords: Stable isotopes, Mi'kmaq, radiocarbon dates, subsistence, Prince Edward Island

Universal pedagogical actions in French immersion classrooms

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French immersion (FI) continues to grow in popularity and diversity across Canada. However, issues persist as some students who face academic challenges in school often refrain from enrolling in FI. In other cases, some are counseled out of FI and are encouraged to return to the mainstream English program when experiencing difficulties (Genesee, 1992; 2007; Mady & Arnett, 2009). This study was interested in exploring ways to better support a wide range of students in order to address these concerns. Inspired by the Universal Design for Learning model (CAST, 2011) as well as best practices in second language teaching, a list of universal pedagogical actions (UPA) was developed by the Second Language Research Institute of Canada which identified ways to better support students in FI. FI is a unique learning context since students learn subjects in their second language. As such, it was important to identify gestures, procedures and operations that promotes the most favorable environment to learn a second language and make the curriculum more accessible to learners (Bourgoin, Dicks & Hennessey, 2015). This research focuses on how UPA are employed at different grade levels and in different subjects areas. Using a basic qualitative research design (Merriam, 2009), this study was conducted with twenty FI teachers. Data collection was completed through interviews, observations and document analysis. Preliminary results seem to indicate that there is an increase in motivation and engagement when teachers use UPA intentionally in their classroom. UPA seems a promising approach to help address issues of accessibility and retention in FI.

Keywords: Inclusion, second language learners, Universal Design for Learning, best practices

Influencers of career development in New Brunswick Aboriginals

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Recent employment statistics in the province of New Brunswick show the Aboriginal unemployment rate to be 20.8%, almost double the rate of the non-Aboriginal population (Department of Post-Secondary Education, Training, and Labour, 2013). Education attainment rates are also well below those of the rest of the province. These factors are correlated, as confirmed in the recent study that stated: "higher levels of Aboriginal educational attainment do translate into higher income levels and better labour market outcomes" (Fong & Gulati, 2013). The existing body of academic literature is lacking concerning the variables that influence career development and employment in the Aboriginal population of Atlantic Canada. A recent survey sample of the Aboriginal people of New Brunswick gathered data on the following variables: gender, marital status, education, social dependency, mobility, and career interests (Joint Economic Development Initiative Inc., 2015). Each of these variables has demonstrated an effect on career development in the existing literature but little is known about their relevance to the Aboriginal population of Atlantic Canada. This presentation of my research will include discussion of the statistical analysis to be completed to identify and assess predictors of career interest in the Aboriginal population of New Brunswick. This research will contribute to answering the following question: What impact does gender, marital status, education, mobility, and social dependency have on an Aboriginal person's career interest level? This presentation will summarize work-in-progress research by addressing the current literature regarding Aboriginal career development in Atlantic Canada and explaining how the findings will impact academia, government, industry, and Aboriginal people in New Brunswick.

Keywords: Aboriginal, career counseling, career development, employment, Atlantic Canada

From source to tap: Developing a community-based monitoring program for drinking water supplies in the Indian Bay watershed

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In rural Newfoundland, our watersheds are integral to our identity and way of life, while providing critical drinking water supplies. Unfortunately, the occurrence of boil water advisories is widespread throughout the province. As drinking water issues in rural areas are inextricably tied to the health of watersheds, local land-use practices and managerial structures require scrutiny. As part of a community-based approach to remediating this complex issue, the Indian Bay Ecosystem Corporation (IBEC) collaborated with Memorial University's Environmental Policy Institute to find solutions

to persistent challenges relating to rural drinking water supplies. The objectives are: to determine the presence of microbiological and/or chemical contaminants of surface waters in the Indian Bay watershed, determine public practices and perceptions related to water consumption and contamination, and to research community-based water quality monitoring models employed elsewhere and to develop a partnership network. A household survey was conducted to better understand practices and perceptions towards public drinking water supplies. Chemical and microbiological analysis was conducted to determine levels of metals, nitrates, sulphates, E. coli, and coliforms. An advisory committee from within the community ensured public representation. Safe public water supplies clearly require upgraded infrastructure and responsible land-use practices within watersheds. Evidence further suggests there is a level of distrust and distaste for public drinking water supplies. For these reasons, it may be inadequate to merely “fix” infrastructural and management-related issues within these water systems. Community-based education, outreach, and participation are critical to achieving water security and safety.

Keywords: Watershed management, water security, rural development, boil-water advisories, community-based research

Intravenously to orally administered cancer drugs: A review of the paradigm shift, issues, and the Canadian perspective

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A significant recent shift in cancer care is the increased use of orally administered anti-cancer medications. The purpose of this study was to better understand the causes for this shift, the issues it has created, and possible solutions. A review of the literature on this topic was conducted via the University of Prince Edward Island's Robertson Library on-line databases, with other sources being reviewed as required. It was found that while this paradigm shift in cancer care can improve the cancer patients' quality of life, it has also created non-adherence issues, with lack of patient education and high drug costs being major causes of this problem. It was found that adherence can be improved by proper patient education and drug costs can be mitigated by improved treatment and trial design, re-directed health care dollars, and altered methods for drug price setting. Finally, the Canadian situation was reviewed and it was found that there are efforts being made to reduce cost and improve access to oral drugs in this country, although large discrepancies still exist based on where a patient lives. Health care policy and decision makers should consider the findings of this study when determining delivery and pricing models for these new oral anti-cancer agents, both for the sustainability of the health care system and for the financial security of the patients requiring the medications.

Keywords: Oral, chemotherapy, adherence, patient education, cost

Dealing with the algae bloom patterns in Mattatall Lake (Nova Scotia)

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Mattatall Lake requires a serious attention due to massive algae-bloom observed from summer time until December 2014. This bloom phenomenon persisted when the ambient temperature was very low and it seemed not normal because they are generally associated with warm weather. Some preliminary tests detected the presence of toxic species, which could release a dangerous toxin. This issue needs a serious study to better understand the causation and its negative impact on environment and human life. Our objectives are 1) Data collecting to build a dataset for biophysical and chemical parameters; 2) Identifying the causation of blooms associated with the environmental changes; 3) Suggesting a sustainable solution for the water issue of Mattatall Lake. Data collection is realized at different locations and at various depths of water body, including physical, hydro-chemical and biological parameters. This dataset will be served as a validation base for our bloom analysis and prediction. We identified that there was the presence of *Anabeana planctonica* with 424,000 cell/ml, and the presence of total phosphorus in water is much higher than the allowed limits. Toxic species *Anabaena planctonica* was first observed in the province of NS. Our study can lead to a monitoring system, which allows estimating the level of eutrophication of the lake and watershed, determining sources of micronutrients supply and providing recommendation for recreational activities and drinking water quality in NS. This is also the first study to investigate the eco-environmental issues in the province.

Keywords: harmful algae bloom (HAB), Mattatall Lake, *Anabaena planctonica*, water quality, bio-chemical-physical database.

Adopting an intersectional framework in the study of immigrant women's health: A case report

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There is an emerging interest in utilizing an intersectionality perspective to the study of immigrant women's health and wellbeing, which highlights the importance of understanding the complex influences of the intersections of multiple social determinants of health and social indicators. Using narrative moments, recounted by an immigrant woman with disability, this presentation makes a case for an integrated

framework for the study of immigrants' health with the objective of addressing a gap in the literature on intersectionality in the health discipline. The data were drawn from a larger study of health and wellbeing of Iranian immigrant women residing in Ottawa/Gatineau area. Several strategies for establishing the rigor including member check, audit trail, thick description, and reflexivity were utilized. The findings have indicated that a number of intersecting factors, mostly social constructs, resulted in health deterioration of the participant and ultimately led to her permanent disability. This case example has shown how gender roles and ideologies, absence of social support networks, language skills, housing, and prolonged economic insecurity intertwined and mutually reinforced each other. Consequently, these determinants intersecting with racist and disablist attitudes, resulted in further material deprivation which seriously damage the participant's health. In this presentation, I argue that intersectional framework, which is grounded in lived experience, can be considered as an important step in the evolution of immigrant women's health research. Ignoring the complexity of immigrant women' lives and how the experiences of multiple locations affect health, can reify a range of inequities.

Keywords: Intersectionality, immigrants' health, disability, social determinants of health, qualitative studies

Academic motherhood: Silver linings and clouds

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Women who are mothers and academics often experience family and career conflicts and challenges. Female professors with children (a) carry a heavier load than their male counterparts, (b) are 30% less likely to have a tenured faculty position, and (c) are more likely to have intentions to leave the profession (Dryfhout & Estes, 2010; Rhoads & Rhoads, 2012). This point infers that having children has a greater effect for women than for men, perhaps due to the doubled workload that women experience in their multiple roles as mother, spouse, and academic. Altogether, women experience work/life conflicts and interferences, overload, and stress due to role contagion (Armenti, 2004b; Cummins, 2012). However, academic motherhood is a mixed experience, with sacrifices and rewards, as well as challenges and supports. Ward and Wolf-Mendel (2012) spoke about academic motherhood as sacrificial and rewarding, describing it as "silver linings and clouds," fraught with contradictions, and positive and negative stories (p. 49). In the current qualitative and phenomenological study, eight female participants (professors and senior administrators) shared stories about the sacrifices and rewards of having children and pursuing a career in higher education. They noted several challenges, such as difficulty achieving work/life balance, lack of training and development opportunities, and lack of quality mentors for women. Participants also noted multiple supports, such as spouses and work

flexibility. In conclusion, the motherhood experience as a leader in higher education was a mixed and dynamic experience. The stories and experiences shared add to the current discourse around academic motherhood.

Keywords: Academic motherhood, higher education, supports, challenges

Understanding dynamics: A relational model's insight

**Paul Jalbert
Laurentian University**

Action theory models rely on five pillars to understand behavior: intention, strategy, consciousness, rationality and interest (Laflamme 1995; Girard 2004; Girard 2009). These are the basic conceptual underpinnings for many (if not all) tradition theories whether it is in economics, psychology, sociology, anthropology, and the list goes on. In the last few decades, researchers have grown increasingly skeptical about the value and validity of these principles (Bouchard 2000; Girard 2004; Girard 2009; Jalbert 2006). There is now a significant body of evidence to suggest that theories relying on these principles are inadequate when it comes to their ability to understand the dynamics, nuances and complexities of human behavior. In its place, relational models have demonstrated their value in bringing a better understanding of these types of dynamics. In my research, I compared a traditional action theory model to a relational model when trying to understand family interactions. I audio/video recorded the interactions of 5 families over the course of a week. I then transcribed the data so as to be able to complete an analysis of the conversations that transpired over that week. The results suggest that a relational model is a more effective tool when it comes to understanding family dynamics. This is significant as it once again demonstrates that action theory models are not sufficiently supple to integrate the complexities of the events that it is trying to analyze when compared to a relational model. This is a significant contribution to the field as it demonstrates in a real world environment that a relational model is effective in understanding the dynamics of family interactions.

Keywords: Relational approach, intention, dynamics, rationality, emotion

Tracking Atlantic Halibut (*Hippoglossus hippoglossus*) in the Gulf of St. Lawrence

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The 2013 Atlantic Halibut stock assessment identified several pieces of information that would be required to begin to accurately assess the status of Atlantic Halibut in the Gulf of St. Lawrence (DFO 2013). Chiefly they needed to identify breeding/rearing areas, migration patterns and gain insight into the genetic structure of the stock (DFO 2013). In response, a study was designed using traditional and archival tags as well as DNA microsatellites to answer these questions. Preliminary results indicate that halibut tend to migrate from shallower waters (30-50m) to deeper waters (200m) to overwinter. Fish tended travel very little outside of their migration periods and could be found at the same location for long periods of time. This information implies that movement is largely seasonal rather than continuous. This information is critical in designing targeted surveys for Atlantic Halibut and other efforts for long term monitoring.

Keywords: Atlantic halibut, microsatellites, tagging, fisheries, Gulf of St. Lawrence

Hydroelectric development along the Lower Churchill River and the perceived influences on social relationships and how these social relationships affect the emotional health of NunatuKavut adults

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Dalhousie University**

Controversial hydroelectric development along the Lower Churchill River in Labrador has raised issues about economic development versus environmental protection with Indigenous peoples. NunatuKavut (representing the Inuit of south and central Labrador) was not included in community consultations that included other Labrador Indigenous prior to this development commencing. Literature indicates that such developments can influence emotional health, by affecting cultural connections, traditional use of land, and social cohesion. This study explores the influence of hydroelectric development along the Lower Churchill River on emotional health and social relationships, and how changes to these social relationships may influence the emotional health of NunatuKavut adults. This study involved qualitative interviews with 10 adult members of NunatuKavut. Critical lens theory, narrative inquiry, and some of the principles of Two Eyed Seeing informed all elements of this study. Data was coded by hand and analyzed for major themes and sub-themes. Three main themes were found through analyzing this study's data: 1) Concern about the changes to the land and community, 2) Lack of voice and power, 3) The tensions and challenges of the development and NunatuKavut social relationships. The development of the Lower Churchill River is affecting NunatuKavut's social relationships and emotional health by altering the way in which its members interact with the natural world individually and

with others. In order to improve/protect the social relationships and emotional health the governments in Canada need to provide meaningful consultations with all Indigenous peoples to create collaborations that are economically and environmentally beneficial.

Keywords: Health promotion, Aboriginal health, environmental health

Claiming green to earn green: China solidifying environmental laws to secure economic monopoly in uninhabited islands-Case study of Fangji Island, China

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China has over 6500 Uninhabited Islands (UIs) along its coast, while a regulation, enacted by Chinese government in 2003, began a new chapter on protecting and privatizing UIs to develop tourism and other stipulated industry with a maximum duration of 50 years. A list of the first 176 UIs allowed to develop is released and said more islands will be added up to the list later. Hoped these UIs protection acts can better maintain this vulnerable pure land than before, yet, its legal purpose is to protect the island ecosystem to meet the requirement of promoting economic development. Despite their early stages, some UIs have already shown environmental degradation during development processes. Taking Fangji Island as a case study, this paper examines its 10-year history of tourism development, to analyze the existing problems and consequences on Chinese UIs' sustainable development. This goal is pursued in two steps: (i) by adapting the evaluation system pioneered by Ivandić and Telišman-Košuta to study Fangji Island; and (ii) by developing an approach capable of analyzing the case which examines current Chinese UIs legislation and sustainable development strategies. The result reveals that the Chinese UI's act is an economic-driven approach sugarcoating with environmental protection causing ecosystem service value decrease. Though designed to study Chinese UIs, this project is analogous to analyzing other uninhabited areas, and offers an opportunity for emphasizing their significance, to fill the present research vacancy on UIs sustainability, and to provide lessons to future UIs development.

Keywords: Uninhabited islands, island development, legislation system, island conservation, ecosystem services

Cardiac biomarker profiles in dogs with naturally-occurring pre-capillary pulmonary hypertension

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The diagnosis of pre-capillary hypertension (PrPH) is challenging due to non-specific clinical signs, and technical requirements for direct evaluation of pulmonary arterial pressure. PrPH could lead to the release of N-terminal pro-B-type natriuretic peptide (NT-proBNP), N-terminal pro-A-type natriuretic peptide (NT-proANP) and cardiac troponin I (cTnI) into systemic circulation. We hypothesized that plasma concentrations of these biomarkers would be higher in dogs with PrPH compared to dogs with clinical signs compatible with PrPH but no echocardiographic evidence of PrPH, and that they would positively correlate with tricuspid regurgitation peak velocities (TRG). Blood samples were prospectively obtained over a 27-month period. Dogs were categorized as follows: 1) PrPH and no evidence of other cardiovascular disease (affected). 2) No PrPH, no evidence of cardiovascular disease and presence of respiratory clinical signs compatible with PrPH (control). 17 affected and 9 control dogs were included. Plasma concentrations of NT-proBNP, NT-proANP and cTnI were significantly higher in the affected group than in the control group ($p = 0.018$, $p = 0.011$ and $p = 0.016$, respectively). There was a moderate positive correlation between the concentrations of all biomarkers and TRG. At a cutoff of 530 pmol/L, sensitivity and specificity of NT-proBNP to distinguish dogs with PrPH from control dogs were 69% and 100%, respectively. At a cutoff of 1025 fmol/L, sensitivity and specificity of NT-proANP were 85% and 86%. At a cutoff of 0.6 ng/mL, sensitivity and specificity of cTnI were 59% and 100%. These biomarkers could be useful for the diagnosis of PrPH in dogs.

Keywords: Natriuretic peptides, troponin, canine, heart

Preliminary assessment of a novel 14-day ambulatory ECG monitor (Zio® patch) in dogs

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Cardiac arrhythmias often are transient and might not be detected using conventional electrocardiographic techniques. The ZIO® Patch (ZP; iRhythm Technologies) is a single-lead, lightweight, adhesive, 14-day ambulatory ECG monitor. This study aimed to prospectively assess its usability in 4 Boxers considered healthy or affected with arrhythmogenic right ventricular cardiomyopathy. The study consisted of 3 parts: 1) Optimal placement of electrodes was investigated using a standard cardiac event monitor. 2) A ZP was placed on each dog. Maximum recording times, quality of ECG tracings, and complications were documented. 3) During the first 24 hours of the study, each dog also wore a Holter monitor. Ventricular ectopic beats were manually assessed on full disclosure reports for both devices. Optimal recording was obtained by placing the ZP on the left side of the animal's thorax, at the 5th

intercostal space, slightly dorsal to the costochondral junction, and oriented either vertically or parallel to the long axis of the heart. In 3 dogs, the ZP remained attached for 14 days. One dog removed the ZP after 59 hours. Skin irritation was documented in all dogs and resolved spontaneously after removal of the ZP. The analyzable time was >93% of the total wear time and recordings provided an unambiguous rhythm diagnosis at rest. Walking, running or playing caused intermittent motion artifact that could impair ECG interpretation. ZP results were comparable to those obtained with Holter monitoring during the first 24 hours. Extended ECG monitoring with the ZP is feasible in dogs and provides interpretable recordings.

Keywords: Canine, electrocardiography, patch, arrhythmia, heart disease

Economic immigrant parents in PEI: Their involvement in education

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By and large, every year Canada receives hundreds of thousands immigrants from around the world; currently more than half of them were recruited and recognized as the economic immigrants. One of the common purposes shared between these latest newcomers is seeking education opportunities for their children. The influx of the steadily increased immigrant population from a variety of cultural, ethnical and linguistic diverse backgrounds is gradually woven into the Canadian demographic fabric in the school system. Immigrant students are vulnerable to the risks of school failure, dropout and various learning issues, therefore the immigrant parental involvement in their children's education has never been more important than now. This study aims to investigate the parental involvement of economic immigrant parents in Prince Edward Island, Canada. By applying qualitative research approaches, the researcher intends to interview, collect and analyze data in order to present how the economic immigrants practice their parental involvement in Canadian societal and educational contexts.

Keywords: Economic immigrants, parental involvement, networking, social capital

Constructional alternation between VCS and OFS in Mandarin Chinese

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Verb copying sentence (VCS) and object fronting sentence (OFS) are widely studied respectively, but few exhaustive studies are concerning the alternation between these two constructions in Mandarin Chinese. VCS can be formalized as: NP1+V1+NP2+V2+XP in which NP1 stands for subject, NP2 for object and XP for the complement, V1 and V2 here bear the same verbal form. OFS in this study refers to the sentence, which is formed by omitting V1 from VCS, represented as NP1+NP2+V+XP. The goal of the paper is to examine the alternating constraints between the resultative VCS and the resultative OFS, i.e., XP is the result of the activity V1 expressed. See the alternation difference in (1) and (2).

- (1) a. Ta chi rou chi fan le (Jiang, 2006).
He eat meat eat bored PERF
'He ate meat and became bored as a result.'
- b. Ta rou chi fan le.
He meat eat bored PERF
'He ate meat and became bored as a result.'
- (2) a. Ta chi rou chi pang le. (Ditto)
He eat meat eat fat PERF
'He ate meat and became fat as a result.'
- b. *Ta rou chi pang le.
He meat eat fat PERF

The paper will research the alternation based on argument structures, animacy of arguments, and derivational differences, and then provide a unified explanation on the syntactic derivation based on Kratzer 1996) and Alexiadou et al.'s (2006) model. A general picture is that both VCS and OFS share a common base [CAUSEP[CAUSE $\sqrt{\text{RootP}}[\sqrt{\text{Root}}]]$], but with different derivational approaches. The pre-posed VP in VCS undergoes base-generation or movement operation according to the difference of argument structures of the resultative verb; while the pre-posed NP2 in OFS are uniformly formed as a result of A'-movement operation. The alternation is permitted only for those VCS whose pre-posed VP undergoes the movement operation, otherwise the alternation is forbidden.

Keywords: Verb-copying, object-fronting, alternation

Exploring the influence of oral health literacy and oral health chronic disease knowledge on older adults' oral care behaviors

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The purpose of the Oral Health Chronic Disease Knowledge Study was to explore the influence of oral health literacy and oral health chronic disease knowledge on older adults oral care behaviors. Oral health literacy has been defined as the degree to which individuals have the capacity to obtain, process, and understand basic oral health information. Oral health chronic disease knowledge is the degree to which individuals recognize the association between oral disease and systemic chronic diseases. Oral care behaviors are oral self-care activities undertaken by individuals to maintain or promote dental health. A total of 73 older adults aged 50 and older completed the mixed method online, Internet based study. Oral health literacy was measured by using the Oral Health Literacy –Adult Questionnaire (OHL-AQ), and oral health chronic disease knowledge was measured by using the Oral Health Chronic Disease Knowledge Questionnaire (OHCDKQ). Four oral care behaviors were examined: dental visit frequency, brushing, flossing, and interdental aid use. In addition, participants completed a demographic questionnaire and answered 9 open-ended questions. Approximately 68.4 % of participants reported visiting a dental professional more than once a year and brushing 2 or more times per day, yet only 35.5% reported flossing once a day. Overall, 96% of participants had adequate oral health literacy, however only 38.4% had adequate oral health chronic disease knowledge. Further multivariate analysis will be conducted to determine if OHL and OHCDK are independently related to oral care behaviors.

Keywords: Older adults, oral health literacy, chronic disease, oral care behavior

Parents' perspectives: Non-francophone parents of children in francophone schools

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This poster presentation will share my dissertation research to date, having completed the data collection and transcription of interviews. My purpose is to describe the demographic characteristics of non-francophone (NF) parents and understand the beliefs, experiences, and involvement of NF parents who have chosen a francophone school for their children. I used a mixed methods approach with twelve focus group interviews and a survey with over one hundred non-francophone parents on Prince Edward Island. Focus group interviews with school teachers and school leaders were also held prior to interviewing parents to gather school leader perspectives. The findings will offer new information to school professionals and parent groups. This research is the first known study in Canada to investigate the experience of NF parents in PEI and the first to focus beyond exogamous couples. It is timely as French schools are serving increasingly diverse populations across Canada (Vincent, 2010; CSLF, 2012; OMOE, 2009) and if marketing by the Commission Scolaire de Langue Française (CSLF,

2012-2013) attracts more anglo-dominant students and families. This study is significant, because findings will fill a gap in the scholarly and professional literature about NF parents, their socio-political motivations for enrolling children in francophone schools, the role they play in the child's education, and the barriers they face relative to educational involvement. Additionally, the study will complement the theoretical models about language revitalization and contribute to the enhancement of school board and school policy and programming. Parent associations in the minority context will be better informed to help parents in their schools across PEI and Canada.

Keywords: Parental involvement or parental engagement, French minority language education, non-francophone parent involvement, French education, bilingual education

Reclaiming histories of enslavement in the Maritime Atlantic: The history of Mary Prince and historic pine timber

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and
Research Team Member**

Empire, Trees, and Climate in the North Atlantic: Towards Critical Dendro-Provenancing

Bermudian born Mary Prince is the first known black West Indian woman to relate a slave narrative. Published in 1831, it is titled *The History of Mary Prince, A West Indian Slave, Related by Herself*. The initial purpose of my interdisciplinary PhD research was to authenticate her story. To do this, I visited the territories in which she had lived: Bermuda; Grand Turk Island; Antigua; and London, England. I also visited Bethlehem, Pennsylvania. In these territories, I accessed local archives, gleaning information that enabled me to locate several sites associated with Prince, including residences of her and her parents' slave-owners in Bermuda. In May 2015, I returned to Bermuda as part of a five-member SSHRC-funded dendro-provenancing team. Dendro-provenancing is a scientific process whereby tree ring and isotope analysis are used to locate the origin of historic timbers. We accessed Bermuda archives, specifically Customs Records shipping inwards, noting large quantities of spruce and pine arriving from Nova Scotia. At Cavendish, a residence once associated with Prince and her family, co-investigator Adam Csank took timber fragments from historic Bermuda cedar and from pine. Though currently awaiting lab results, he noted the pine was tightly ringed, indicating a northern origin. Thus, the enslavement story of Prince and her family is intertwined with past flows of northern timber. Canadians tend to identify with enslavement stories such as the Underground Railroad, overlooking other significant aspects of our enslavement history, such as implications of conducting trade with colonies that, like us, used enslaved labor.

Keywords: enslavement, black history, archives, dendro-provenancing, historic timber

Children's lunchtime food group intakes according to food source: Changes over 5 years of school nutrition policy implementation

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Purpose of study: to assess food group consumption during school lunch over five years of school nutrition policy (SNP) implementation according to food source (home versus school). Methods and data sources: Grade 5/6 school children in Prince Edward Island completed validated lunch time food records during an in-class survey conducted in 2007 (n=1992), 2010 (n=1625) and 2012 (n=1564) (61% response rate). Foods were classified into Canada's Food Guide (CFG) and 16 subgroupings based on similar nutrient composition. Analysis of covariance was used to evaluate differences between years of food group intakes according to food source. Results: Low fat whole Grain Products (LFWG) servings sourced from school and home both increased from 2007-2012 ($p < 0.0001$). School sources of high fat non-whole grains increased ($p < 0.004$) while home sources of high fat whole grains increased ($p < 0.0002$) from 2007-2012. Low fat Vegetables & Fruit (LFVF) from school decreased from 2007-2012 ($p < 0.02$). Implications and Conclusions: Increased consumption of LFWG products consumed as part of school lunch suggest that the SNP is having a targeted impact in terms of whole wheat pizza crust and whole wheat submarine rolls. Increased consumption of higher fat grains (both sources), and decreases in LFVF at school suggest that parent education and closer adherence to the SNP is needed. Importance of study: Importance of including source in the analysis of school food intake data, while looking at the impact of SNPs, as well as using CFG versus solely nutrients, for easier comprehension by stakeholders is shown by results.

Keywords: School, policy, food group, nutrition, diet

A review of stock pinning and its potential causes

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The purpose of this study is to determine whether stock prices cluster around particular strike prices on option expiry dates. This paper critically reviews the literature on stock pinning, discusses the relevant theoretical models and presents areas for future research. The literature makes the following conclusions. First, option trading impacts stock prices. Second, stock pinning is a real phenomenon, we see share prices cluster around particular strikes on option expiry days. Third, we see this phenomenon across a number of stocks. Fourth, non-optionable stocks are less likely to have their prices cluster around a predetermined price on any day. Finally, stock pinning is a product of delta-hedging by hedge traders. The articles I review are from databases maintained by the University of Prince Edward's Island's Robertson Library. I investigate stock price movement of Apple Inc. on an options expiry date. I note that a particular strike is close to the money and has above average open interest. We see Apple's stock price approach that strike as expiration nears and then return to its equilibrium value immediately after option expiration. Data pertaining to this investigation is sourced, with permission, from Thomson One, a Thomson Reuters Inc. application. Investigating stock pinning is important to stock market participants and regulators. The integrity of capital markets is at stake if the lines between legitimate hedging practices and price manipulation are not clearly defined.

Keywords: Stock pinning, option expiry, price clustering, delta-hedging, price manipulation

Exploring positionality in an Aboriginal research paradigm: An outsider perspective

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In this paper I explore questions related to the epistemological and ontological differences existing between Euro-Western and Indigenous ways of knowing. Revealing oneself to the reader through positioning, I explore the possibility of reaching an ethical middle ground, while simultaneously occupying an unearned position of privilege. In doing so, I discuss the personal process of decolonization and its location within research. Drawing on the works of Indigenous scholars, I discuss the potential for a neutral ethical space bridging worldview. In conclusion, I draw details about how meaningful knowledge creation can aid a non-Aboriginal researcher engaged in an Aboriginal research paradigm. An important aspect of this study is the examination of the process of reflexivity as it pertains to knowledge creation by a non-Aboriginal researcher engaged in creating and nurturing cross-cultural research partnerships.

Keywords: Positionality, decolonization, ethical space, research with Indigenous people

Evaluating participatory urban planning approaches in Peterborough, Ontario

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Within an urban context, streets and sidewalks make up a majority of publically owned space, yet transportation trends in Canada serve to isolate people from these public spaces. Car-centric culture discourages active engagement with public space, and undermines the environmental, social, and cultural dimensions of sustainability. This research examines how streets and sidewalks can become vibrant and enlivened public spaces that encourage community members to choose active transportation. Specifically, the research evaluates emerging participatory urban planning processes, theorizing that increased public involvement in urban planning leads to improved planning outcomes and increased active transportation use. The researcher is currently embedded in a multi-year participatory urban planning project in Peterborough, Ontario. The project, called the Stewart Street Active Neighbourhoods Canada Project [ANC], brings together a diverse group of partners from local not-for-profits, the Stewart Street neighbourhood association, the municipality, and public health to create opportunities for marginalized community members to engage in participatory urban planning processes. Using the City of Peterborough, Ontario as a study area and the ANC project as a community-based research context, the research evaluates participatory urban planning practices, and identifies a set of best practices for participatory urban planning. Evaluation tools used include surveys, pedestrian and cyclist counts in the neighbourhood, community focus groups, and event journaling. While the ANC project and the research are still underway, preliminary results suggest that citizens' sense of empowerment and ability to contribute to planning processes are enhanced through the non-traditional participatory planning opportunities presented by the ANC project.

Keywords: Participatory planning, urban planning, community engagement, active transportation, community-based research

Dancing between old worlds and new: The 'Land of Israel' Jewish body from a dancer's perspective

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Muscular Judaism, a concept presented by Zionist leader Max Nordau at the Second Zionist Congress of 1898, had far reaching ramifications. One of these was the construction of a new human type; the blond haired, blue-eyed, masculine and muscular indigenous/authentic Hebrew person. This New Jew would negate the

centuries-old anti-Semitic image of the Jew as cowardly, effeminate and feeble, obsessed with study and out of touch with the material world. By contrast, the Sabra (a first generation Jew born in the Land of Israel), born in and to his homeland, would be superior to his diasporic ancestors in both body and spirit. Through a combination of archival work, media analysis and interviews, the present study traces the gendered New Muscular Jew ideology from turn of the century Central Europe to 1940s Land of Israel through the dance realm. In so doing it demonstrates dance's importance as a medium through which Sabra youth were taught hegemonic characteristics of the ideal New Jew image. Finally, interviews with first generation Sabra dancers, now in their 90s, were conducted regarding their self-image. A fascinating correlation was found between these individuals' performances, both on and off stage, of Sabra identity. As distinguished dance scholar Ann Daly writes in her 1995 book, *Done into Dance*: "Our collective fears and our collective dreams are produced within the body" (3). I conclude that in Mandate Palestine dance was one vehicle for the dissemination of Zionist aesthetics, ideas and ideals.

Keywords: Identity, dance, Israel, Zionism, new Jew

Chinese students' perceptions of factors influencing their language learning and acculturation inside and outside the EAP classroom

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According to Citizenship and Immigration Canada (2012), the country annually receives more than 90, 000 international students who wish to learn English or French at universities throughout various provinces. As an English for Academic Purposes (EAP) instructor, I was concerned curriculum revision was a process largely impacted by instructors' beliefs, and my concern was supported by Eslami's (2010) assertion that instructors may misjudge students' needs and challenges. Applying an andragogical lens to view Chinese EAP students as emerging adults, capable of communicating their learning needs, the idea to use student voice to inform my practice emerged. Through an ethnographic study, Chinese students' perceptions of factors influencing their language learning and acculturation both inside and outside the EAP classroom were sought. Seven participants, who were Chinese transfer students and completed an EAP program set in a rural community within Atlantic Canada, were interviewed. Enhancing the credibility of the findings, document analysis was also performed with one set of photographs, four sets of oral journals, and the anonymous feedback provided by 45 students in questionnaires over two of the last three years of the program. Interviews and documents revealed information on four themes: non-formal and informal learning, assets and challenges surrounding language acquisition and acculturation, more helpful and less helpful aspects of the existing EAP program, and supports needed and wanted. Focusing on the participants' expectations of and

value for learning outside the classroom and evaluations of their EAP program, some implications for teaching practice will be addressed.

Keywords: English for Academic Purposes (EAP), English as a Second Language (ESL), English language learners (ELLs), Chinese students, international students

The contribution of emotion regulation to the development and maintenance of loneliness

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Humans possess a fundamental “need to belong” that drives us to seek and maintain satisfying relationships with others (Baumeister & Leary, 1995). When this need is not satisfied, individuals may experience loneliness, a distressing psychological experience stemming from perceived deficiencies in the quality or quantity of one's social and intimate relationships (Peplau & Perlman, 1982). An inability to form and maintain fulfilling relationships may cause feelings of loneliness to persist over a long periods of time (e.g. years), leading to a state of “chronic” loneliness (Young, 1982). The current study examined the role of emotion regulation as a possible mechanism linking attachment security to the development and persistence of loneliness in an undergraduate sample (N = 261). Two emotion regulation strategies, cognitive reappraisal and expressive suppression, were examined as possible mediators between attachment and loneliness across multiple domains (e.g., family, social, and romantic loneliness). Results revealed that cognitive reappraisal partially mediated the relationship between attachment and family and social loneliness, but not romantic loneliness. Indirect effects of expressive suppression were not significant for either short-term or chronic states of loneliness. These findings reveal similar mechanisms may contribute to experiences of transient loneliness (e.g. last two weeks) as well as the maintenance of loneliness over long periods of time (e.g. last two years). These results have implications for clinical interventions with lonely persons, by suggesting that cognitive reappraisal is a critical target to prevent chronic loneliness. Further implications of these findings and how they may inform clinical interventions and future research will be discussed.

Keywords: Loneliness, attachment theory, emotion regulation, cognitive reappraisal, expressive suppression

Perspectives of mathematics education

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The purpose of this quantitative study was to examine people's perception about the importance of mathematics education and the impact of these beliefs in preparing the children for 21st century. A less stringent, non-probability sampling technique was selected since the study was conceptualized in a small province. An online survey was distributed to residents of Prince Edward Island (PEI) followed by a paper survey. People of PEI responded positively on a 6-point scale on items examining values of mathematics but did not value the significance of mathematics in preparing the children for the future. People's value of mathematics does not differ based on age, gender and cultural group. There was a significant difference between the level of education and people's perceptions about mathematics education. This study identifies the need to create more public awareness for the importance of mathematics ability in preparing children for the future and the impact mathematics ability has on the economic wellbeing of society.

Keywords: Career, Prince Edward Island, perceptions (PE), mathematics ability, gender

Integrative risk governance: A case study of the Ebola virus disease

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How can we explain the prevailing epidemic handling model in the light of integrative ambitions of risk handling? What lessons can we learn from comparing risk analysis and risk governance? As a case study, how can we explain the risk handling process in the current Ebola Virus Disease (EVD) outbreak? Answering these questions is important at a time when epidemic outbreaks, like environmental problems, threaten many jurisdictions beyond domestic boundaries and affect diverse interests in the society. The central argument is that if the EVD outbreak affects jurisdictions beyond domestic boundaries and diverse social interests, its handling should be interdisciplinary and at a global scale. Such interdisciplinary and global approaches to risk handling could be described as 'integrative.' The recent outbreak of other epidemics such as the Middle East Respiratory Syndrome and the search for ways to effectively handle them make probing this integrative risk governance timely. With the help of a focused literature review, qualitative analysis of secondary data and empirical investigation into risk handling models, it becomes clear that the classical risk analysis model might not be suitable for addressing the EVD risk. The innovations of the integrative risk governance model may improve the classical risk analysis model, and enhance a holistic handling of the EVD. Drawing on lessons from environmental risk governance, the conclusion is that the handling of epidemics should be integrative.

Keywords: Risk analysis, risk governance, global governance, epidemics, Ebola virus disease

Discourses of motherhood and childlessness in Bangladeshi print media and fertility centres

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In Bangladesh there is tremendous pressure to have babies after marriage. Childless couple, women, in particular, often suffer due to this pressure because in Bangladesh the common belief is that infertility is a woman's problem. Nowadays, Bangladeshi health professionals are using and reproducing the dominant discourse of motherhood and childlessness to legitimize the necessity of New Reproductive Technology (NRT), and these ideas are echoed in print media. Sociological and feminist researchers explain that despite the reality that NRTs pose tremendous harms in women's lives, nonetheless, fertility clinics encourage women to use these treatments. Although Bangladeshi childless women may suffer from this ubiquitous construction of motherhood as natural, very few Bangladeshi social scientists and feminists are critical of this construction. My research has taken an alternative approach in its interrogation of Bangladeshi media and fertility centres' representations and constructed knowledge of motherhood and childlessness. I am using Foucauldian and feminist, post- structural theories and employing the method of discourse analysis to examine the discursive construction of knowledge about motherhood and childlessness in Bangladesh. My data sources are: Bangladesh's two leading and widely circulated daily national newspapers, five video clips from Bangladeshi television talk show and news on the subject of NRTs, and four fertility centres' NRTs client information packages. This research will further develop our understanding of the representation of, and construction of knowledge about women's bodies, the social regulation process, and women's social status in Bangladesh.

Keywords: Motherhood, childlessness, new reproductive technology, women bodies

Improved detection of a fish virus with a segmented genome by real-time RT-qPCR

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Piscine Reovirus (PRV) is a virus that affects farmed and wild salmon in Norway, British Columbia-Canada and farmed Atlantic salmon in Chile. This virus is associated with heart and skeletal muscle inflammation (HSMI), an important disease in salmon aquaculture. The pathogenesis of PRV is still not well understood, and there is a controversy about its role in HSMI since some studies report high viral load by RT-qPCR in fish with or without lesions. The PRV genome comprises 10 double stranded RNA segments, and most diagnostic tests only target L1 segment. Nevertheless, the amplification of transcripts by RT-qPCR is likely to be different since the copy number of RNA transcripts from each segment is in direct relation to the protein abundance and normally inversely proportional to the size of the genome segment. Therefore, this study aims to determine which transcript cycle threshold (Ct) value of the PRV first 5 genome segments best reflects virus load in a fish tissue sample. For this purpose, copy RNA (cRNA) templates of the 5 genome segments were generated by in-vitro transcription. RT-qPCR assays will be evaluated for each genome segment. This approach may improve the detection of PRV in fish samples and identify additional samples to the current diagnostic criteria.

Keywords: Reovirus, fish disease, Atlantic salmon, RT-PCR

Students' agentic engagement within project-based learning

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Student engagement at the high school level is imperative and has been emphasized for two primary reasons. First, to enhance learning outcomes, and second to enhance graduation rates. Overall, student engagement and student learning are synced and are intrinsic to education. Extant literature discusses student engagement as being comprised of three to four major dimensions - affective, behavioural, cognitive, and academic. Students' agentic engagement is an emergent concept that encompasses their constructive and critical contributions to the learning process. This newer dimension of student engagement promotes student voice and subsumes significant elements of the previously discussed dimensions of student engagement. Project-Based learning fosters authentic hands-on and minds-on group activities, and students' agentic engagement through its student directed learning design. While project-based learning has been gaining popularity as a pedagogical strategy, limited studies are available on students' agentic engagement. Through videoethnography this study explores expressions of and factors influencing students' agentic engagement within project-based learning in a high school setting. Data for this study is drawn from two grade ten English Language Arts class students who participated in a curricular innovation designed by the Digital Economy Research Team headed by faculty in the University of Prince Edward Island. Initial findings present students'

agentic engagement as a multi-stage phenomenon categorized as the recipient stage, partnership stage and ownership stage of agentic engagement.

Keywords: Agentic engagement, project-based learning, videoethnography

Exploring the language of mathematics in three preschool classrooms

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From 2003-2009, Canada experienced a significant decrease in the Programme for International Student Assessment (PISA) mathematics scores in six of ten provinces (Knighton, Brochu & Gluszynski, 2009). Recent research suggests that improvement in mathematics education correlates with better early numeracy preparation (Baroody, Lai, & Mix, 2006; Ginsburg, Sun Lee, & Boyd, 2008; LeFevre, Fast, Sowinski, Osana, Skwarchuk, & Quain, 2009). Thus, it is imperative to investigate what pedagogical approaches are being used to teach mathematics to our youngest citizens if we are committed to developing the numeracy life skills of Canadian students. Driven by new understandings of the important role that language plays in the teaching and learning of mathematics, this qualitative study explored how three early childhood educators (ECEs) used language to communicate mathematical meanings in three preschool classrooms. The study involved two components: (a) video recording of mathematical lessons; and (b) informal conversational interviews with the educators to discuss the video content. Several themes emerged from the analysis including: (a) ECEs' mathematical talk varied depending on how the mathematical domain was introduced to the children; (b) ECEs talk mathematically through questioning; (c) ECEs use approximation words to talk mathematically; (d) ECEs use body language to communicate mathematical meanings; and (e) ECEs use emotional terms to communicate mathematical meanings. Findings revealed that in general the use of mathematical language was limited and that oral language was mostly used to assess children's mathematical knowledge.

Keywords: Early years, mathematics education, linguistics

Can eight weeks of recreational physical activity improve balance measures in individuals with Parkinson's disease?

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Parkinson's disease (PD) is progressive neurodegenerative disorder that affects nearly 100,000 Canadians and seven to ten million people worldwide. Characterized by tremor, bradykinesia and rigidity, people with PD also experience postural instability resulting in poor balance, inability to perform functional activities and decreased independence. Traditional treatment includes physiotherapy, pharmaceutical therapy and surgery. Recently, the effects of recreational programs such as yoga, tai-chi and dance are also being investigated. The purpose of this study was to evaluate the effects of an 8-week community based supervised recreational program on balance measures in people with PD compared to a control group of people with PD. Static and dynamic balance were evaluated using the forward functional reach test (FFRT) and timed up and go test (TUG) before and after the 8 week program. As the study is ongoing, the presented data is preliminary. Paired samples T-tests were used to analyse the difference in means for the FFRT and TUG. There was no significant increase in FFRT scores from pre exercise ($M = 8.62$, $SD = 2.02$) to post exercise ($M = 8.30$, $SD = 1.78$), $p > .05$. There was an improvement in the TUG scores from pre exercise ($M = 6.03$, $SD = 0.68$) to post exercise ($M = 5.73$, $SD = 0.65$), however this was not statistically significant, $p > .05$. The lack of significance may be due to the limited sample size. It is important to study changes in balance due to community based recreational program as this will help to suggest improvements to the current recreational program and develop new programs for those afflicted with PD as well as other neurodegenerative diseases.

Keywords: Parkinson's disease, balance, recreation, exercise, community-based program, physical activity

Shifting paradigms: Variation and leitmotifs in the Final Fantasy XIII trilogy

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Analysis of video games has focused mostly on the technical, commercial and social aspects of the field. So far there has been little investigation into the artistic merits of video games, including the music, which is an integral component: it communicates to players all kinds of information both in place of and in conjunction with the visual and textual information provided on-screen. In many story-driven games, such as Square Enix's Final Fantasy series, the music can be just as important to the narrative as any other element of the game. The focus of this research is on analyzing the presentation and development of musical material as it relates to the story in the Final Fantasy XIII trilogy (comprised of Final Fantasy XIII, Final Fantasy XIII-2, and Lightning Returns: Final Fantasy XIII). Analyzing the recurring motives and themes not only supports the development of the story, but also contextualizes and connects other elements of the game for the players (such as game mechanics and aesthetics).

Traditional tools for analyzing leitmotifs and variation will be sufficient for analyzing the Final Fantasy XIII trilogy as a multi-media artwork. An in-depth analysis will help to highlight the similarities between music normally separated into “art” and “popular,” and bring more current game music repertoire into discussion. This presentation will also include a brief exposition on other methods of introducing video games into academic discussion, including their influence on young artists creating new works.

Keywords: Video games, music, leitmotif, multi-media art

An interpretative phenomenological analysis of the experiences of students requiring tertiary level behavior support within inclusive high school settings

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The proposed study will investigate the experiences of high school students with significant emotional-behavioral challenges who require individualized positive behavioral support within an inclusive secondary school setting. The experiences of three adolescent youth receiving tertiary level of behavior support will be recorded using a semi-structured interview method and analyzed using an interpretative phenomenological inquiry method. According to the literature, implementing a Positive Behavior Intervention Support (PBIS) framework in a school promotes appropriate behavior development among students and ensures that a positive learning environment is maintained (Flannery, Fenning, Kato & McIntosh, 2014; Feuerborn, Wallace & Tyre, 2013). Students with significant emotional and behavioral challenges, who struggle with maintaining appropriate conduct in an inclusive learning environment, require a wraparound system of individualized behavior education supports to have success in high school (Lane, Oakes, Menzies, Oyer, & Jenkins, 2013). This presentation will examine how the NB education system is providing for these students. Inclusion policies and positive behavior support frameworks are generally accepted as effective strategies for all students but missing from the literature is the voice of the youth for whom these targeted support services are designed. This research is in process and data analysis and results will not be available in time to present, but the research will be described in terms of the literature available and the proposed research model. The study will be important to the field of behavior support research and education because it will provide student perspectives on the efficacy of implementing positive behavior intervention support while following inclusive educational practices in a provincial high school.

Keywords: Inclusion, Positive Behavior Intervention Support (PBIS), tertiary support, phenomenology

Exploring the impact of an invasive crab on a declining population of Irish moss in a marine protected area

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In Basin Head lagoon, PEI, a unique form of Irish moss (*Chondrus crispus*) has been found to grow in close association with blue mussels (*Mytilus edulis*). Unlike coastal Irish moss that uses holdfasts to attach to substrates, this form is held in place by mussel byssal threads, forming moss-mussel clumps. Since the early 2000's there has been a significant loss of this red algae in Basin Head, with surveys citing declines in abundance of greater than 99%. As this decline corresponds to the arrival and spread of the invasive green crab (*Carcinus maenas*) in this area, we hypothesize that the green crab contributed to the decline and discuss several possible mechanisms by which they may harm this unique algae.

Keywords: Marine ecology, Irish moss, green crab, invasive species

Nitrogen cycling during the legume and grass forage phase of a three-year potato rotation

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There is increased attention on potato production in PEI and the environmental and health concerns of excess nitrate (NO_3^-) potatoes in PEI necessitates a better understanding of nitrogen (N) cycling in potato rotations. An experiment was established at Harrington Research Station, PEI to assess nitrogen cycling from forages in soil and soil solution before and during potato phase. In spring 2013, barley was underseeded with red clover (RC), timothy (T) or a timothy-red clover mixture (M). Forages were left to regrow in 2014. Ceramic suction (30 and 50cm) and steel lysimeters (80 cm) were installed belowground in 2013 and 2014 respectively to estimate soil solution NO_3^- . Between May-October 2014, anion exchange membranes (AEM) were buried (15 cm) and replaced every two weeks to measure released soil NO_3^- matter was comparable among RC (4.55 Mg ha^{-1}) and M (4.72 Mg ha^{-1}) but significantly lower in T (1.42 Mg ha^{-1}). Peak N release (September) from the root zone as measured by AEMs was $33.17, 86.90, 127.49 \text{ NO}_3^- \text{ ug } 10 \text{ cm}^{-2} \text{ weeks}^{-1}$ for T, RC, and M respectively. The C/N ratio at ploughdown was $T > M > RC$. The concentration of NO_3^- was highest in RS for both lysimeters. Preliminary results from lysimeters and AEMs indicate their ability to assess different forage treatments and potentially estimate N availability or loss. Potatoes were planted in spring 2015 and yield, total N uptake and soil NO_3^- will be determined following potato harvest.

Keywords: Nitrogen cycling, potatoes, grass-legume mixtures, nitrate leaching

Cultural perspectives on education in Prince Edward Island: A focus on the culture of large-scale assessment

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Large-scale assessment (LSA) has been used as an effective tool for government organizations to justify the well being of educational systems in terms of accountability, gatekeeping, instructional diagnosis, and monitoring student achievement purposes. The purpose of this study was to examine public perspectives about LSA in terms of their knowledge and value of LSAs. An online questionnaire combined with a paper and pencil questionnaire was distributed to residents of a small Canadian province using a nonprobability purposive sampling technique combined with convenience sampling. A total of 515 questionnaires were completed. Findings revealed that public did not fully understand the purposes of LSA, especially the purposes of the international assessment. There were no significant differences when examining occupation, employment status, and educational attainment with perspectives about LSA. Findings from this study will contribute to future growth of LSA initiatives and utility of LSA data.

Keywords: Large-scale assessment, culture, common assessment, value, stakeholder, Prince Edward Island

Evaluation of biochar on reducing nutrients leaching from soils in Nova Scotia

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Agricultural activities in Nova Scotia may cause high concentrations of nitrogen and phosphorous leaching from soil due to the use of fertilizers and manures. Biochar has been considered as a soil amendment to reduce nutrients leaching from agricultural soil in highly weathered tropical areas. This study aimed to evaluate the impact of different types of biochars on reducing leaching of plant nutrients such as nitrate, ammonia and orthophosphate to a selected agricultural soil in Nova Scotia. Repacked soil columns containing 0, 5, 10 g of biochar kg⁻¹ of soil were leached with

0.001 M CaCl₂ weekly for 30 weeks following the application of NaNO₃, KH₂PO₄, and NH₄Cl solution during the 6th, 14th and 22th week respectively. It has been found that biochars can effectively reduce the nitrate leaching from all soils especially the biochar made from poultry manure. However, the reduction of orthophosphate from soil was not significant for biochars made from mixed-hard wood. What is more, soils incorporated with biochars made from poultry manure experienced higher leaching of orthophosphate than soils columns without biochars. The observation of ammonia retention from soils will be ongoing in the future study. The results indicate that biochar amendment in agricultural soils can substantially reduce nutrient leaching, and suggest that biochar amendment in soil can be a nutrient management option, which will bring environmental and economic benefits to agriculture.

Keywords: Nutrient leaching, nutrient retention, biochar, nutrient management, agricultural activities

A qualitative study of self-determination and academic outcomes in post-secondary students with disabilities

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The purpose of the proposed study is to investigate the degree of self-determination experienced by post-secondary students with learning disabilities who are experiencing positive academic outcomes. This study is in process and will employ a qualitative framework using mixed methods to examine the impact that a co-morbid mental illness has on self-determination, identity development and academic outcomes, for university students with a learning disability. Participants from a university Student Accessibility Centre will complete a battery of questionnaires that will include the Self Determination Scale (SDS) (Anctil, Isikawa, & Scott, 2008) along with a demographic questionnaire. Results will be used to select participants to be interviewed and resulting transcripts will be examined, using Interpretative Phenomenological Analysis (IPA), for themes around the topics of self-determination, identity development and managing a co-morbid mental illness. This study will be of importance to administrators and support personnel at post-secondary institutions as it will contribute understanding to the best way to support students who have learning disabilities, while bringing awareness to other challenges that they may face, such as mental illness (anxiety or depression). This research will provide insight into how to provide the best support and proper tools for these students so that they are able to develop self-determination, identity and ultimately achieve academic success despite the other challenges that they may face.

Keywords: Post-secondary students, learning disabilities, self-determination, and co-morbid mental illness

Food security and the provincial school system

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The central inquiry of this project is to determine what analyzing children's interactions during school gardening and food programs reveals about what children know about food and nutrition. The investigation will focus on kindergarten students (5-6 years of age) in an inner-city elementary school in Charlottetown, Prince Edward Island. This qualitative research study involves a series of steps beginning with what Sacks described, as "unmotivated observation" (1984), of a stretch of recorded interaction while volunteers are copresent with the children. Conversation analysis and ethnomethodology will be used as research tools in this study. The volunteers will use recording devices with the consent of the children's parents. Upon evaluating audio data collected from a series of food and gardening program activities, an analysis will be conducted centered on determining what this information means Prince Edward Island educators, school boards and society. The analysis of the audio data from the activities will include: 1) reviewing the expectations of the mandated kindergarten curriculum, with particular focus on section 2 of the curriculum document which is focused on health and well-being (Government of Prince Edward Island, 2008), 2) transcribing audio recordings of children, teachers, and volunteers engaged in the program; 3) coding transcripts, to highlight instances where the children make reference to food or nutrition 4) a content analysis of data to determine what these children know about food and nutrition, and how this relates to curriculum expectations. Furthermore, it will be investigated whether some children know more about food and nutrition than others, and if so how this disparity came to be. Few studies have begun to examine how school gardening and food programs can provide an authentic context for children's learning about food and nutrition, none have examined how children's knowledge about food and nutrition relates to the concept of food insecurity, and none are specifically focused on Prince Edward Island's unique geography nor the province's reliance on farming and agriculture.

Keywords: Food security, gardening and food programs, environmental sustainability, ethnomethodology, conversation analysis

