

PROJECT #1

Villainification in Social Studies Textbooks

Project Abstract:

Some textbooks offer very nuanced descriptions of the people and processes behind large-scale systemic harm, such as war and genocide, but many do not. This project will examine a variety of textbooks to see how "the bad guys" are portrayed. Specifically, we will analyze the texts for "villainification." Villainification is the process of creating single actors as the faces of systemic harm, with those hyper-individualized villains losing their ordinary characteristics. Villainification obscures the way that evil operates through everyday actions and structures. This project takes up the task of anti-villainification through an extension of Hannah Arendt's banality of evil. Those involved in the Holocaust, and other atrocities like it, would be considered (in other contexts) to be "normal" people in terms of their morality and demeanour. We will examine textbooks for the presence (or absence) of discussions of the ordinary aspects of people and processes, and the implications that such portrayals might have on student agency and sense of responsibility regarding contemporary evils.

Project Description:

Over roughly 15 weeks (or about 330 hours), the undergraduate student will be involved in a combination of activities: a) developing familiarity with the project, including reading articles about the concepts of villainification and the banality of evil; b) reading and analyzing a selection of textbooks from Canada and the U.S.; c) contributing to writing up the analysis in a journal article. Work can be on- or off-site with a flexible distribution of hours, but the student must be available for periodic face-to-face meetings to keep the work on track.

Research project's relevance to Education Research:

An explicit awareness of how we talk about war, genocide, and other types of systemic harm can elicit critical thinking about the people and processes behind them. A textbook study will add to a theoretical article on villainification that is currently being revised for the top journal in social studies education, *Theory & Research in Social Education*. By examining oversimplified representations of evil in textbooks, we can explore their underlying assumptions. While social studies and history scholarship generally forwards a strong critique of "heroification," there is little critique of the one-dimensional portrayals of evildoers in K-12 texts. This study will help fill that void.

Benefits for the Student:

The undergraduate student will develop a deeper understanding of social studies curriculum, in particular how systemic harm is articulated in textbooks. Thus, the student will become more familiar with common curricular topics, such as the Second World War. Also, the student will have an opportunity to contribute to a journal article, thus honing their writing skills and adding a significant line to their curriculum vitae.

Supervising Academic:

Cathryn van Kessel, Assistant Professor, Secondary Education

PROJECT #2 Motivation and emotions during mathematical reasoning

Project Abstract:

To conduct educational research, scientists require access to children and their families. Likewise, children and their families deserve access to the results of educational research. Museums have been identified as a rich venue in which scientists and the public can meaningfully interact. Telus World of Science Edmonton (TWOSE) would be considered a science museum and is currently actively seeking researchers to participate in their new Lab Quests program. The current research is part of a larger project which will be the very first to run in TWOSE's Lab Quest program and seeks to answer three research questions: 1. What mathematical processes/reasoning do we observe as kids/parents and kids play games? 2. What are the motivational and emotional tension that help kids enjoy vs. feel frustrated, persist vs. abandon games? 3. What is the engagement and quality of interaction between parents and kids when they engage in games? The Roger Smith student associated with this particular award will be most closely related research question #2 – motivation and emotion.

Project Description:

Specific work: The Roger Smith student will be "on the ground" at Telus World of Science Edmonton (TWOSE) as one of several research assistants responsible for facilitating a range of activities and questionnaires to children and parents as part of TWOSE's innovative "Lab Quests" program. Data will be collected on site during a few weekends in May. After the sessions have been conducted, the Roger Smith student will continue to work with the full research team in beginning to analyze the observational and self-report data, create reports for TWOS, and disseminate results back to participants.

Research project's relevance to Education Research

This project is highly relevant to education research. It seeks to use a single project to collect information from student and parents both in terms of observations and self-report and apply this data to understanding three areas: (a) math reasoning, (b) motivation, (c) parenting. All three of these represent critical areas for emerging teachers to gain experience. Specific to motivation and emotion, the Roger Smith recipient will have the opportunity to observe different types of learner motivation and emotions as they encounter games of different challenge levels and under different conditions (e.g., time pressure vs. free choice) and consider how these principles play out in the classroom. Moreover, this will be the first project to run through TWOS Lab Quests and thus is an exciting new partnership to which the student can be associated. Our recommendations about research processes will contribute to future opportunities for partnership, to negotiating access to participants including ethics consideration, and knowledge translation of education research to the public.

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Benefits to Student:

Benefits

The student will have opportunities to develop research skills:

- be trained and participated in data collection (observational and self-report data)
- manage empirical data
- be trained in and experience analysis of qualitative data
- work as part of a team with other graduate and undergraduate students
- share results of the research with TWISE, parents, and teachers

The student will benefit in shaping his or her pedagogical practice:

- Become familiar with major motivational principles as they relate to learning
- develop resources to engage parents in children's math learning and to use in future classrooms
- understand how motivation and parenting background influence children's participation in school
- access to TWISE Lab Quest program, inclusive of their training program

Supervising Academic:

Lia Daniels, Associate Professor, Educational Psychology

PROJECT #3 **Comics and The Emotional Situation of Learning to Teach:
Collaborative Reading and Encounters with Adolescent Life in
Graphic Novels**

Project Abstract:

With the explosion of the popularity of graphic novels over the past decade, this study investigates the uses that adult readers who desire to become teachers make of such texts. Using graphic novels as our objects of inquiry, and emphasizing the rhetorical strategies of multimodality, this research asks how the aesthetic experience of reading comics explicitly focused on adolescent life may be enjoyable, educative, and meaningful for adults becoming teachers.

While numerous contemporary educational researchers have heralded the use of comics in the classroom, the emphasis of their enthusiasm is typically reserved for its instrumental uses in pedagogical spaces with adolescent and child readers. Noticing a dearth in empirical studies that focus on how actual readers make sense of the multimodal design of graphic narratives, this study joins in the contemporary conversation of the productive uses of comics in educational environments, but shifts the direction away from young adults and children, and toward the reading experiences of preservice teachers (at the University of Alberta) and undergraduate students (at the Ontario College of Art and Design) intending to enrol in teacher education programs in the future. Since adult readers often underestimate the skills required to access the narrative complexities and ambiguities of comics, this study promises to make conspicuous the typically unacknowledged processes involved in reading such works.

This research has four main objectives. First, it examines how adult readers of graphic narratives make interpretive sense of the textual form of comics, which asks them to incorporate experiences of both a spontaneous and contemplative nature. Second, it considers the embodied nature of collective literacy formations, in the particular context of interpreting multimodal texts. Third, it will work with two differently situated groups of readers, to investigate how their practices of symbolization, and their co-construction of knowledge, speaks to their projected position and emotional development as future educators. Finally, we will develop with our participants a methodology of visual response, asking them to create a variety of images inspired by memories of their own adolescence. Interpreting this data, we seek to question between the lines of what is said and what is left unsaid in our participants' responses. Our development of a psychoanalytic theory of multimodal textual engagement will also emphasize the ways in which reading persists as an emotional endeavour, where the interpretive process involves an interweaving of memory, desire, and always emergent (teaching) identity.

Project Description:

By summer 2017, data collection at both research sites (University of Alberta and OCAD) will be completed, with the exit interviews done at the end of April. As the data will also have already been transcribed (through a professional transcription service), the major research tasks over the summer will comprise of data analysis, interpretation, and synthesis.

2017 Roger S Smith Selected Projects

Specific Tasks:

May 2017: DATA ANALYSIS (80 hours, 20 hours/week)

The RA will spend this month familiarizing themselves with the data, comprised of individual interviews, paired exit interviews, and group discussions. They will also have access to the visual responses that participants created throughout the study. The RA will also read the four graphic novels that the participants worked with. Though we will have regular meetings once a week, this work may otherwise be completed off site.

While familiarizing themselves with the qualitative data, the RA will compile a chart that narrates the interviews and discussions in note form, paying attention to the participants' uses of language, metaphor, and visual imagery.

The RA will also create a chart for comparative analysis across research sites, noting differences and similarities between participants' textual interpretations, uses of language, and their conversations while sharing their visual responses.

June 2017: CODING (80 hours, 20 hours/week)

Following from the RA's work in May, we will develop a procedure for coding the data. Since this coding will be done by hand, and in partnership with me (the PI) and the CI, it may require more on site presence.

July 2017: ANALYSIS OF VISUAL RESPONSE (80 hours, 20 hours/week)

The work for this month will involve learning how to analyze visual artifacts, as a mode of reader response that involves something other than words alone. Approximately half of the hours may be completed off site.

August 2017: Creation of a Research Document (90 hours, 22.5 hours/week)

Over the course of this month, the RA will synthesize their interpretive work into a research document. Depending on the quality of this work, there is the possibility of the RA being included as a co-author on a publishable paper.

The work for this month will involve learning how to analyze visual artifacts, as a mode of reader response that involves something other than words alone. Approximately half of the hours may be completed off site.

Research project's relevance to Education Research

Given the emphasis on new modes of visual representation across the curricula of teacher education programs in Canada (and in provincial curriculum documents), this study promises to renew and enliven a necessary discussion about how adult readers interact with representationally ambiguous texts. If students studying to become teachers hope to engage the potential of multimodal narrative complexities with their future students, it is essential they first become acquainted with the indeterminate experience of reading such texts themselves. The results of this study will have multiple implications for curricula of reading, reception, and teacher education across Canada.

Benefits to Student

There are numerous benefits for an undergraduate RA interested in working on this project:

- 1) The RA will learn how to read and interpret research documents.
- 2) The RA will become familiar with a variety of methods in qualitative research.
- 3) There will be the opportunity for the RA to be a co-author on a published paper.
- 4) The RA will gain experience reading and interpreting representationally ambiguous texts.

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Supervising Academic:

David Lewkowich, Secondary Education

Project Abstract:

Background: The ability to quickly name aloud series of visual stimuli, such as digits or pictured objects has been long known as one of the most powerful predictors of reading fluency (e.g., Norton & Wolf, 2012). However, the basis of this association remains largely unknown. While our previous work has outlined the importance of the simultaneous presentation of the stimuli for the strong link between naming symbols and reading words (Altani, Protopapas, & Georgiou, 2016; Protopapas, Altani, & Georgiou, 2013), how this relationship changes as a function of grade level has yet to be determined. Eye-voice span is an innovative analysis approach that combines two streams of data: (a) eye movement recordings, and (b) associated vocal responses during oral reading or naming aloud, by temporally aligning these two streams to provide information about how visual and linguistic sub-processes are scheduled over time (e.g., Gordon & Hoedemaker, 2016). Using this technique, we can explore the several processes (i.e., visual, oculomotor, linguistic) involved in reading and naming, and how they are shaped over time. Better understanding of the complex tasks of reading and naming, and consequently of fluency development for children across different grade levels is essential in developing targeted reading instructions and reading intervention programs.

Methods: Eye movement data, using the EyeLink 1000 plus, has been collected from 120 students from Grades 1, 3, 5 (about 40 per grade) who read words and sentences aloud and named basic visual stimuli (e.g., digits).

Analysis: We will use Data Viewer from EyeLink 1000 plus to extract the eye movement data and Praat (Boersma & Weenink, 2012) to extract the vocal responses. Then we will temporally align the two streams of data to explore their relationship across time. The data extraction will include: onset and offset of gaze, onset and offset of vocal response, regressions (i.e., backward eye movements), skips (i.e., items that are omitted), speech errors. Automatic phonetic alignment of the vocal responses will be performed using Praat (Boersma & Weenink, 2012). Subsequently, the output with the onset and offset boundaries by the automatic alignment procedure will be manually edited by trained coders based on the visual waveform and auditory assessment of the vocal response. Speech errors will be identified, including item-name substitutions, omissions, self-corrections, repetitions, skips, and any other type of extraneous speech (e.g., “ehm”). Finally, the aligned vocal responses and associated eye movements will be manually aligned to determine how many items that the eyes are ahead of the voice at the onset of the vocal response.

Conclusions: The results of this work will be useful in advancing models of reading fluency development.

2017 Roger S Smith Selected Projects

Project Description:

May: The student will become familiar with the current literature on eye-voice span technique in reading and rapid naming through directed readings, biweekly meetings and attendance at the Reading Research Lab (lab meetings that discuss current methodological approaches and analyses in reading literature). The student will also become familiar with the current programs used to analyze eye movement and linguistic data.

June-July: The student will apply his/her knowledge of analyses and programs to edit the automatic phonetic alignment and identify any extraneous type of vocal responses for each participant (Data has been collected for N = 120 children from Grades 1, 3, 5). S/he will use Praat (Boersma & Weenink, 2012) to code the waveform and extract the necessary data (i.e., onset and offset of vocal responses) for analysis.

August: The student will assist the faculty member and a graduate student in interpreting the findings and creating visual representations of the eye-voice span measurement. The student will compile the findings into a conference poster and assist in the paper write-up.

Relevance to Education Research

Eye movement techniques have become a useful tool in understanding reading. In this context, the results of the proposed study using eye-voice span paradigm (an innovative approach in analyzing eye movement data with the concurrent vocal responses) will complement the finding of our previous work of advanced and beginning readers (e.g., Protopapas et al., 2013) in which we used only behavioral measures. The findings will have significant theoretical implications as they will show us how visual and linguistic processes involved in the complex tasks of reading and rapid naming are scheduled and shaped across development, as well as how the ability of efficient processing of multiple items (e.g., words, digits) develops across grade levels. This will ultimately inform the current models of reading fluency development.

Benefits to Student

The student will get a first-hand experience on the complexities associated with eye movement research, specific to reading. The student will gain specific knowledge on groundbreaking technologies in the area of educational psychology (i.e., eye-movement tracker) and valuable research skills by actively participating in the research process, including data extraction, data analysis, and reporting. The student will familiarize himself/herself with the eye movement patterns and common speech errors of students from different grades in elementary school, as well as with the precise technique of speech analysis (inspection and analysis of the waveform), useful skills related to language acquisition and language production, speech pathology and rehabilitation, education and reading development, etc. The student will also learn about teamwork and how to collaborate with individuals at varying stages of academia (students, professors, techs, etc.). These skills will put a student in an ideal position to pursue graduate studies in several fields (e.g., education, psychology, linguistics).

Supervising Academic:

George Georgiou, Associate Professor, Educational Psychology

PROJECT #5

Social and Emotional Wellness in Schools

Project Abstract:

Study Aim: To explore the implementation of mindfulness and evaluate its impact on students and teachers in participating local schools. We propose a phased approach to system evaluation and change.

Background: Mindfulness is described as a "conscious, moment-to-moment awareness, cultivated by systematically paying attention on purpose in a particular way". Mindfulness/meditation can be taught through a structured program of instruction, and there are a variety of programs available. Instruction often includes mindfulness meditation, mindful yoga, and discussion of mindfulness practice.

Mindfulness studies in youth show decreased reactivity, depression, anxiety and increased psychological and interpersonal functioning wellbeing, calmness, relaxation, self-awareness and self-care skills. Local research evaluating MBSR for high risk youth showed improvement in coping skills; affective states; interpersonal relationships; self-care; enhanced relationship to self; improved problem-solving; increased self-control; improved mood; and awareness of the present. This preliminary work confirms that youth are able to engage meaningfully with mind-body techniques, such as mindfulness, and suggests further investigation is worthwhile.

Design: A five-year, three phased approach will be used for this project; earlier phases will inform latter phases.

In Phase I, we will conduct a scoping and needs assessment of the range of mindfulness initiatives offered in local schools, including which schools offer mindfulness to the whole student body versus to select classes/grades.

In Phase II, we will carry out a case-control assessment in schools offer mindfulness programs to some or all classes. If mindfulness is offered to some classes, comparison will be with classes in the same school without mindfulness instruction. If mindfulness is offered to all classes, schools that do not offer a mindfulness program will serve as the comparison group.

In Phase III, we will assess schools identified as intending to implement mindfulness programs; these schools can serve as their own controls, with assessment pre- and post-implementation of a mindfulness program. We envision a prospective stepped-wedge cluster-controlled trial in which mindfulness is offered in intervention schools/classes and the comparison group will be comparable schools/classes that do not offer mindfulness. Analysis will occur within and between schools to measure impact of mindfulness initiatives on students and teachers.

Project Description

Work on the project will occur from mid April (after exams) to end of July (approximately). The RA will work in Edmonton Public and area districts. RAs will be expected to work while schools are in session and at the Integrative Health Institute on campus. Access to transportation would be beneficial (and reimbursed, additional to the award).

Research opportunities may include:

- data collection in classrooms with student participants
- classroom observations of mindfulness practices/activities
- data coding and entry
- interview participation
- assistance coding qualitative data
- literature reviews

Relevance to Education Research

Mindfulness is described as a "conscious, moment-to-moment awareness, cultivated by systematically paying attention on purpose in a particular way". Mindfulness/meditation can be taught through a structured program of instruction, and there are a variety of programs available. Instruction often includes mindfulness meditation, mindful yoga, and discussion of mindfulness practice.

Mindfulness studies in children and youth show decreased reactivity, depression, anxiety and increased psychological and interpersonal functioning wellbeing, calmness, relaxation, self-awareness and self-care skills. Studies examining mindfulness practices in K-12 have been overwhelmingly positive impacting both well being and academic outcomes.

Benefits to Student

Students will have the opportunity to:

- learn more about social and emotional wellness - in K-12
- will learn about various mindfulness activities and techniques that teachers engage in locally
- they will learn about structured interviews and observational protocols
- will have the opportunity to examine the research literature and learn how to use online data bases

Supervising Academic:

Veronica Smith, Educational Psychology

PROJECT #6

Fostering Historical Reasoning, Hope, Empathy, Emotional Engagement and Queer History Awareness with a Mobile Augmented Reality App

Project Abstract:

In general, Canadian youth and young adults comprise a healthy and resilient population, but LGBTQ individuals are disproportionately represented among those who are not thriving: LGBTQ youth and young adults are commonly at inordinate risk of experiencing physical and electronic bullying, verbal, and sexual harassment, and physical violence at home and in educational and community settings, and are more likely to ideate about, attempt, or complete suicide, and suffer from mental illness and substance abuse. This study is a response to a call by the Canadian Chief Public Health Officer and others to develop LGBTQ-positive, comprehensive educational interventions that consider the histories, social, and cultural attributes depicting LGBTQ students and can be implemented into educational institutions.

This proposal aims to achieve these broad objectives through two complimentary lines of inquiry: (1) Identifying different types of educational (queer history) and psycho-social outcomes (hope, resilience, empathy) from engaging in historical reasoning (an activity during which learners acquire knowledge of the past and use it to interpret phenomena from the past and present) with a mobile-augmented reality (AR) application, and (2) to identify evidence-based design recommendations for mobile AR apps from multiple streams of data (e.g., emotional engagement from a physiological bracelet, real-time historical reasoning from a think aloud protocol). This project leverages prior theoretical, methodological, and empirical work that Harley, Lajoie and Poitras have done examining historical reasoning and mobile-AR (Harley et al., 2016, 2017; Poitras et al., 2016) and Grace's extensive program of research with the LGBTQ community, including the development of educational resources (Grace 2015).

Project Description

This IDG SSHRC-funded project is in its first year of operation. Briefly, this project aims to: (1) identify different types of educational (queer history) and psycho-social outcomes (hope, resilience, empathy) from engaging in historical reasoning with a mobile-augmented reality (AR) application, and (2) to identify evidence-based design recommendations for mobile AR apps from multiple streams of data. Please see the short abstract and the Jan 20, 2017 Illuminate Magazine article for more information: <<http://illuminate.ualberta.ca/content/pocket-size-guide-local-queer-history>>).

In the summer of 2017 the undergraduate student would support the following research activities: Historical content identification, selection, copyright acquisition, transcription, and storyboarding for the mobile application. Historical content will come from interviews with prominent community members, archival text, newspaper clippings, images, and video, etc. Selection, organization, and storyboarding of the content is necessary because of the large quantity and importance of prioritizing, summarizing, and communicating information that stands to engage and educate. The research assistant would also provide feedback and non-technical (e.g., programming background not required) assistance working with the research team to help ensure that the selection and formatting of the app is user-friendly and engaging. This will include tasks such as making suggestions and providing feedback on different lay-outs, pilot testing, and helping with the uploading of digital content with guidance from the research team. The RA would also assist with adapting an instructional-prompt framework which guides tutorial support that a guide provides to the learner and user of the app to help foster historical reasoning (from Harley et al., 2016; accepted). Running participants as a tour guide, and collecting and managing data are also important project-related tasks.

2017 Roger S Smith Selected Projects

Relevance to Educational Research

The proposed study stands to significantly advance knowledge across different areas of education, including history, social studies, educational psychology, and educational technology, in addition to having broad social benefits. This study seeks to educate Edmonton students about an important and contemporary social justice topic that is often not addressed in schools for political, religious, or curricular reasons. In addition to learning outcomes, we hypothesize that engaging in historical reasoning with queer history will promote hope and resilience in LGBTQ students and empathy (a 21st Century skill) in non-LGBTQ learners. With regard to technology and educational technology in particular, this project will contribute to the scarce results and design recommendations for fostering engagement and learning with mobile educational technology. As such, this study stands to help build a more socially inclusive and accepting as well hopeful and technologically literate population.

Benefits to the Student

The student will learn about and be involved in mixed methods educational research, designing and evaluating educational technology, and gain insight into a number of educational and psychological processes (and theories of) including empathy, emotions, and historical reasoning and their relationship with learning. Moreover, the student will learn about queer history and its relationship with current LGBTQ issues and legal/societal advances with regard to equality. The latter stands to help the research assistant support LGBTQ individuals in the classroom.

Supervising Academic:

Dr. Jason M. Harley, Assistant Professor, Educational Psychology

PROJECT #7 **Parent-child engagement during mathematical games**

Project Abstract:

Parenting during early and middle childhood sets the foundation for positive, mutual engagement between parents and children and creates a solid base for future learning and socialization to take place. In response to children's developmental changes, mothers and fathers are required to strike a balance between teaching and providing their children with opportunities to find success in their socialization environments. A strong recognition of the importance of bidirectional parent-child influences has been documented in the parenting literature, but is less often reflected in the types of methods and designs used in the majority of parent-child studies. Optimally, parents need to adapt their parenting behaviours to best match the situational-based needs of their children. Through various parent-child interactions, children acquire the social, emotional, and cognitive skills needed for early social functioning. The current research is part of a larger collaborative project with Dr. McFeetors (Elementary Education) and Dr. Daniels (Ed Psych). This project will be the very first to run in the Telus World of Science (TWOSE) Lab Quest program and seeks to answer three research questions: 1. What mathematical processes/reasoning do we observe as children/parents and children play games? 2. What are the motivational and emotional tension that help children enjoy vs. feel frustrated, persist vs. abandon games? 3. What is the engagement and quality of interaction between parents and kids when they engage in games? The Roger Smith student associated with this particular award will be most closely related research question #3 – parent-child engagement quality.

Project Description

Specific work: The Roger Smith student will receive practical experience by being on-site at the Telus World of Science Edmonton (TWOSE) as one of several research assistants responsible for facilitating a range of activities and questionnaires to children and parents as part of TWOSE's innovative "Lab Quests" program. Data will be collected on site during a few weekends in May. After the sessions have been conducted, the Roger Smith award recipient will continue to work with the full research team in beginning to analyze the observational and self-report data, create reports for TWOS, and disseminate results back to participants (i.e., parents).

2017 Roger S Smith Selected Projects

Relevance to Educational Research

Relevance: This project is highly relevant to education research. It seeks to use a single project to collect information from children and parents both in terms of observations and self-report and apply this data to understanding three areas: (a) math reasoning, (b) motivation, (c) parenting. All three of these represent critical areas for emerging teachers to gain experience. Specific to parent-child engagement quality, the Roger Smith recipient will have the opportunity to observe different types of parent-child exchanges and interactions as families encounter games of different challenge levels and under different conditions (e.g., time pressure vs. free choice). While these are structured games, the award recipient would have the opportunity to become familiar in identifying (via coding) the various ways parents encourage (or discourage) positive exchanges related to educational games of varying complexity, and similarly how children contribute to these educationally-based interactions, as well. While exploratory, the project will allow us to gain insight into how families approach educational tasks. Engaging parents in their children's education, and as education partners, is critical in building positive home-school relationships. Since this is the first project to run through TWOS Lab Quests, it is really setting the stage for future educational projects. Our recommendations about research processes will contribute to future opportunities for partnership, to negotiating access to participants including ethics consideration, and knowledge translation of education research to the public.

Benefits to the Student

Benefits

The student will have opportunities to develop research skills:

- be trained and participated in data collection (observational and self-report data)
- manage empirical data
- be trained in and experience analysis of qualitative data
- work as part of a team with other graduate and undergraduate students
- share results of the research with TWOSE, parents, and teachers

The student will benefit in shaping his or her pedagogical practice:

- become familiar with the parenting literature, and the ways in which parents can support their children's social growth and development
- develop resources to engage parents in children's math learning and to use in future classrooms
- understand how parenting, parent-child exchanges, and parenting background influence children's participation in school
- access to TWOSE Lab Quest program, inclusive of their training program

Supervising Academic

Christina Rinaldi, Professor, Educational Psychology

PROJECT #8

KidSport' Student Athlete Scholarship Pilot Project: A Stay-In-School Initiative for Low-Income Youth

Project Abstract:

Participation in school sport has been associated with several educational benefits, including increased educational attainment and likelihood of attending post-secondary institutions, increased school engagement and commitment, and reduced engagement in risky behaviours. However, students from low-income families are less likely to participate in school sport due to financial barriers. While schools may be thought of as a setting that provides equitable access to sport, parents are typically required to pay additional fees for their children to participate in sport, ranging from \$150-\$450 per season, depending on the school and the sport. Recognizing the potential benefits of sport and realizing the financial barriers to participation for low-income families, KidSport has launched the 'Student Athlete Scholarship Pilot Project'. This project is a stay in school initiative that provides youth in low-income communities with access to, and experiences of, school sport by allocating funding to help pay school sport fees for 5 years: grade 8-12. The project brings together the business, sport and education communities in Alberta who all have a vested interest in the academic benefits and overall wellbeing of low-income youth who stay in school and graduate. The purpose of this proposed research is to understand the extent to which the KidSport Student Athlete Scholarship Pilot Project was successful in promoting educational outcomes and wellbeing of students from low-income households. The specific objectives are to: (a) understand the range of interrelated factors that influence school sport participation among low-income youth; (b) understand the benefits of school sport participation for youth and their parents from low-income families; and (c) understand the context, opportunities and challenges of the KidSport Student Athlete Scholarship Pilot Project. Multiple case study methodology will be used to achieve project objectives. Data collection and analysis will involve three interconnected research activities: (a) document analysis which will examine letters from students involved in the project, school attendance and grade records; (b) youth interviews to gain understanding of experiences, challenges and benefits; (c) parent, coach, and stakeholder interviews to better understand context, challenges and opportunities of the project. The proposed research will yield important information about the benefits, challenges, and opportunities associated with a school sport initiative. A better understanding of the role of school sport on educational outcomes and the wellbeing of low-income students will advance both sport and educational literature.

2017 Roger S Smith Selected Projects

Project Description

The work will include 3 main aspects over the 15 weeks.

1. Literature Review: the student will be trained in review strategies and techniques and guided to sources and key words. This work will be a combination of on-site (training, monitoring and evaluation) and off-site (self-directed hours, library, home, etc.). The literature review work will be ongoing over the course of the 15 weeks, filling in the time between the other two areas. This time is flexible and can be scheduled with the student directly.

2. Data Collection: Part A - the student will be involved in gathering and collating documents from the student. These will include student letters, grade and attendance reports. The responsibilities will include data entry (excel) and overall document organization. Document collection and collation will occur in June and into early July and will be on-site. Part B - the student will accompany the researcher(s) off-site to assist with semi-structured interviews. These will be scheduled for May and will involve some travel. The student will also transcribe the interviews.

3. Data analysis: finally, the student will assist in data analysis consisting of a thematic examination of the letters and interviews as well as grades and attendance. This work will be a combination of on-site and off-site and will be concentrated in July and August.

Overall, the schedule is quite flexible and it is possible to work with the accepted student to find the best combination of on-site and off-site work as well as the ability to extend or condense the work within the 330 hours (ie. 40 hours one week and 12 the next).

Tentatively, the work will be spread out as follows: 80 hours in May; 100 hours in each of June and July and; 50 hours in August.

Relevance to Education Research

School sport (along with other extra-curricular activities) has been shown to be a positive factor for school connectedness, graduation rates and overall school success. Low income students have lower success rates in school, lower graduation rates and in general encounter more barriers than their peers who come from more affluent families. An understanding of the challenges and successes of KidSport's project through the eyes of the student (letters, interviews) will allow the student researcher to gain a deeper appreciation for the role of relationships and extra-curricular connections in education.

Benefits to Student

The undergraduate student will join a team of faculty members and KidSport project personnel to investigate the impact of school sport on youth from low-income families.

The student will be given the opportunity to:

1. Increase their knowledge of school sport and the benefit of school sport programs for low-income youth.

2017 Roger S Smith Selected Projects

2. Develop skills to search and review literature related to:

- a. Youth sport and school sport;
- b. Sport participation among low-income youth;
- c. Barriers to school sport participation among low-income youth;
- d. Educational benefits to school sport participation for youth from low-income families.

3. Learn how to do document analysis (letters from students) for emergent themes and trends working with an experienced researcher.

4. Learn the skills needed to conduct semi-structured interviews. The student will increase their knowledge of qualitative inquiry through readings and guidance from the faculty supervisor. They will be given opportunities to accompany and assist experienced researchers in interviews.

The benefits of learning these skills include an increase in knowledge of qualitative inquiry as well as an understanding of students' concepts of school sport..

Supervising Academic

Doug Gleddie, Associate Chair - Graduate Studies, Associate Professor, Elementary Education

PROJECT #9 **Teachers' and Students' Understandings of Ethnic Diversity**

Project Abstract:

This project focuses on elementary teachers' and grade 6 students' understandings of ethnic diversity. Whereas previous research has focused on attitudes towards difference, this study sought to better understand how elementary teachers and students understand the ethnocultural diversity that surrounds them everyday in their schools, texts, media, and social circles. This Roger Smith research project will involve collaborative analysis of the data collected for the project described above. The data include 100 interviews with teachers from across Canada and 100 interviews with grade 6 students from across Canada. Analysis will lead to the preparation of one manuscript, which the undergraduate student will have the opportunity to co-author.

Project Description

Work will include the following:

1. Training in research ethics guidelines and protocols to ensure confidential treatment of data.
2. Training in phenomenographic data analysis methods.
3. Collaborative development of data analysis codes and strategies for analyzing teacher and student interviews.
4. Bi-weekly meetings to discuss data analysis and emergent findings; refining data analysis codes and procedures as necessary.
5. Drafting of a manuscript for submission to a peer reviewed journal. The student will have the opportunity to be involved as a co-author on the manuscript.

The student will need to be available for weekly on-campus meetings for the first 2-3 weeks of the project and after that we will meet every two weeks, or as often as we mutually determine necessary.

Relevance to Educational Research

In recent years, K-12 social studies curricula across the country have placed increasing emphasis on teaching for and about ethnocultural diversity, however we have little information on how teachers or students understand what ethnocultural diversity is. Since teachers are the primary conduits for curriculum and are responsible for ensuring that students meet curricular outcomes, it is vital that we develop a better understanding of how teachers interpret and understand the concept of ethnocultural diversity, including delving into their approaches to teaching about it. In terms of students, a key tenet of constructivist teaching is the importance and influence of prior knowledge on new learning. Analysis of the student data will lead to insights into the range of conceptions that students hold about ethnocultural diversity, which will in turn inform curriculum development and teaching.

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Benefits to Student

The student will benefit in the following ways:

1. Opportunity to work on an area of key concern for educators and the wider public - diversity and multiculturalism.
2. Become familiar with the literature on diversity and multicultural education in Canada.
3. Gain insight into their own understandings of ethnocultural diversity and how those understandings may shape their practice as an educator.
4. Through bi-weekly discussions with Dr. Peck, be mentored in research ethics protocols and qualitative (and specifically, phenomenographic) research methods, focusing on analysis and interpretation.
5. Further mentorship will occur through the opportunity to co-author a manuscript based on our analysis of the data.

Supervising Academic

Dr. Carla Peck, Elementary Education

PROJECT #10 Re-Imagining School Sport: A Case Study of One School's Experience

Project Abstract:

Health and education are in an interdependent relationship, where healthy students make better learners, and educated students make healthier choices. Participation in physical activity has been linked to positive health and learning outcomes. However, statistics show that participation in physical activity declines as students' progress through school. This decline in physical activity participation has potentially significant health and educational consequences through an increased risk of a number of chronic diseases including obesity and negative impact on student attention, retention, and classroom behaviour. Children and youth spend a significant amount of time in school - on average Canadian children and youth spend 6-7 hours a day on school grounds. As such, it is reasonable to suggest the opportunities provided to students to be physically active while at school is a major contributor to overall physical activity and can help facilitate optimal academic behaviours.

The purpose of this study is to explore one school's experiences in re-structuring the physical activity opportunities (i.e., school sport and intramural programs) in their school, with the goal of increasing student participation. Specifically, the athletic department at Ellerslie Campus School in Edmonton Alberta has made significant changes to their school's physical activity offerings. The purpose of this study is to: (a) understand the changes made and the reasons for these changes; (b) understand the experiences of those involved in the newly developed program (i.e., students, teachers, principal); and (c) identify key successes and barriers of the new school program. Qualitative methodology will be used to achieve the objectives of this study. Participants (i.e., students, teachers, principal) will be asked participate in individual or focus group interviews. Ultimately, this information will help develop strategies to further support school-based physical activity opportunities for students.

Project Description

Over the course of the 15 weeks, the student will engage in the following activities:

1. Develop skills to conduct a literature review on:
 - (a) Health and education benefits of physical activity
 - (b) Current school-based physical activity programs and offerings;
2. Assist with conducting interviews; Transcribe the interviews; and
3. Begin initial analysis of the data.

The literature review will begin at the onset of the work (May) and continue throughout the course of the 15 weeks. Interviews will be conducted throughout May and beginning of June at Ellerslie Campus School in Edmonton. Transcription and initial data analysis will be completed during July and August.

The student work schedule will be flexible with work being completed on-site and off-site, depending on work and student preference. The distribution of work hours will also be flexible, with opportunity to condense work or extend work as needed.

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Communication with the supervisor will be ongoing--both in person and by email. Weekly meetings/communication with the supervisor will occur once a week to ensure the tasks for the week ahead are clear. In addition the undergraduate student will know that they can contact the supervisor at any time.

Relevance to Educational Research

It is well documented that healthy students learn better. Providing students with school-based physical activity opportunities (e.g., extracurricular physical activity, intramural programs) can positively impact both their learning and their health. For example, a positive relationship exists between physical activity and cognition. Further, physical activity can positively impact anxiety, depression, mood, and well-being, all of which may have impact on academic achievement. Involvement in this research project will allow the student researcher to gain knowledge on the educational benefits of physical activity among children and youth.

Benefits to Student

The undergraduate student will join a team of researcher investigating school-based physical activity programs and strategies to increase physical activity participation of students while at school.

The student will be given opportunities to:

1. Increase their knowledge on health and educational benefits of physical activity through literature reviews;
2. Increase their knowledge on current school-based physical activity offerings through existing research and initiatives;
3. Develop skills to assist in conducting semi-structured individual and focus group interviews;
4. Develop skills to transcribe interviews and begin an initial analysis

Lauren Sulz, Assistant Professor, Secondary Education