PROJECT #1  
Young Indigenous Women's Circle of Leadership

Project Abstract:
The Cree language plays an essential role in our ability to learn and transmit Indigenous knowledge. The Young Indigenous Women's Circle of Leadership (YIWCL) is a program that is launching young women on the journey to their own discoveries to reclaim their ancestral language and knowledge. YIWCL is open to young Indigenous women, ages 10-16 and is focused on the Cree language with a foundation in Cree knowledge and spirituality through immersion experiences. We are addressing many of the TRC’s Calls to Action, focusing on the Cree language and knowledge of this territory. Indigenous knowledge, embedded within the language, is critical in an Indigenous person’s ability to be able to take care of themselves in many different respects. For example, there are many ceremonies of renewal within Cree tradition that support a relationship of strength, interdependence, and are a critical space for accessing knowledge. YIWCL provides access to these ceremonies to the young women, therefore connecting the young women with the ability to access their language, knowledge and strength. Cree is a spiritual language and as such is the foundation of YIWCL. YIWCL is the only Cree immersion youth program within Alberta. In this qualitative research study we intend to interview the young women and instructors to explore and document the overall experience.

Project Description:
The project will begin in spring and run through the summer primarily on campus but could include day trips to nearby reserves. The student will contact past youth about the program. She will be trained to do short face to face and telephone interviews and will sort past project materials for data analysis. She will do some research to examine other such programs in Canada. The will do some data collection through social media sites that support Indigenous languages such as twitter and compile findings for the research team.

Criteria
The student will need to be female as this is an all-women’s program and focuses on traditional Cree women’s experiences. It would be uncomfortable and inappropriate to have a male researcher. Some familiarity with the Cree language and traditions would be beneficial. Collaborative working style is essential and the candidate must be open to new cultural experiences. Prior cross cultural experience will be an asset. Computer and social media research skills required.

Benefits for student involved in research:
The student will gain experience with research and receive training in research methods and tools. She will learn about qualitative studies based in Indigenous Research Methodologies. She will experience working in a collaborative relationship with Indigenous and non-Indigenous scholars, Cree instructors and youth. She will gain experience in coordinating research events and scheduling interviews. She will learn about participant observations, taking field notes, organizing and filing research data. She will gain experience with transcribing interviews and assisting the team with initial data analysis. The student will gain expertise in online research and social media tracking of Indigenous languages initiatives in Canada and abroad.

The research assistant will become familiar with the TRC and Calls to Action as they apply to youth, language and culture. She will have opportunities to participate in traditional Cree practices, events and ceremonies if appropriate. She will learn a little conversational Cree and how to act in a culturally appropriate way in Treaty six territory events. She will gain an elementary understanding of Cree epistemology. She will explore applications to curriculum for schools.

Supervising Academic:
Dr. Heather Blair, Professor, Elementary Education
PROJECT #2 Improving equity through critically curating open education resources for elementary mathematics teacher education (PreK - 6)

**Project Abstract:**
Equity is a critical issue in elementary mathematics education. Open Education Resources (OER) - materials that exist in the public domain or are licensed openly - are rapidly increasing access and improving equity in terms of reducing costs and increasing achievement outcomes for diverse populations of learners worldwide. At present there exists a wealth of open resources for elementary mathematics education distributed across multiple platforms. However, at present these resources are under-utilised as they have not been critically curated by educators in ways that are meaningful to pre-service and in-service teachers. This design-based research project is at the earliest stage in the first iteration - intelligently and intentionally collecting, connecting, and critically curating high quality open content that is available for elementary mathematics education and tagging/coding these resources with tags that are meaningful for local teachers and other interested stakeholders while creating tools to allow for modification/personalization of these tags and codes for individual learning contexts. The research products will be open and widely disseminated.

**Project Description:**
The position will include working with the researcher to:

**May**
Determine a specific focus topic for student-researcher work based on researcher expertise as well as student interest. Topics include numeracy, spatial reasoning, computational thinking, mathematical knowledge for teaching, ethnomathematics, arts-integration, and computational thinking (including robotics). Other topics are possible where researcher has strong developing interests eg. early years, environmental sustainability, digital tangibles eg. Micro:bit.
Identify open education resources for elementary mathematics education from Internet search, library search, and Social media search.
Verify the legal ways in which the open content can be used in schools, workshop settings and in University courses.
Design & Create framework for an open database of open education resources for elementary mathematics education using Google sheets or other application.

**June**
Critically demonstrate, evaluate and annotate individual elements of open resources found in text (blog) or video (Youtube channel).
Tag/Code individual resources with first level meaningful codes based on personal experience and social media search (eg. what are people asking about and looking for, recommending?)
Identify gaps in the open database (eg. what are people asking for or about for which there doesn’t exist or cannot locate an open equivalent.)

**July**
Modify or create new open education content to address at least one gap.
Transform database into a mobile app-based solution using open app creation tools.
### Benefits for student involved in research:

The student-researcher will have opportunities to develop and demonstrate the following research skills:
- Selecting and limiting a focus for research inquiry.
- Effective search strategies from academic and non-academic sources.
- Record-keeping and data management using open tools.
- Reference and citation management (APA) using open tools.
- Critical analysis of data to identify trends, keywords and gaps.
- Communication and Dissemination of results for popular and professional audiences through creating curatorial artifacts - database, app, research-informed report.

The student-researcher will have opportunities to improve their mathematical knowledge for teaching through:
- Exploring a segment of the open mathematics education resource ecosystem
- Extending and consolidating learning about mathematical tasks and principles of effective pedagogy from EDEL 316 with specific examples of open content for teaching and learning elementary mathematics.
- Expand understanding of Alberta Program of Studies (PoS) for Mathematics and connect PoS to open resources.
- Creating or remixing open content for elementary teachers using digital and social media tools.

The student-researcher will have opportunities to develop and demonstrate professionalism and leadership through:
- Mindfully attending to mundane and challenging tasks in a timely manner while working independently.
- Learning to work as part of a small research team as an equally valued co-constructor of knowledge.
- Developing knowledge and expertise with open mathematics education resources and technological tools that may enhance their prospects for post-degree employment in education or related domain or graduate school admission.
- Construct a professional response to a current challenge of communicating how children learn mathematics to parents (encouraging home-school connection through game play)

The student-researcher will have opportunities to network with peers in mathematics education through:
- Engaging with specific open education resource providers
- Engaging in exploration of social media mathematics education ecosystems.

### Supervising Academic:

Dr. Steven Khan, Assistant Professor, Elementary Education
### Project Abstract:

This study examines whether enhanced parenting self-efficacy after Parent Management Training (PMT) leads to improved parenting for parents of children with and without symptoms of Attention-Deficit/Hyperactivity Disorder (ADHD). When involved in PMT, parents may know what strategies to use but have difficulty actually implementing them in their daily life. Improving parenting self-efficacy may be key to bridging this gap. This study will help us understand how increases in parenting self-efficacy influence use of specific PMT strategies in parent-child interactions, and how this relationship differs depending on parent and child characteristics. If interested in the study, parents will call the Attention, Behaviour, and Cognitions (ABC) Lab in the Department of Educational Psychology and complete a telephone screening interview with a researcher. Parent-child dyads will be randomized into (1) an enhanced self-efficacy group, or (2) a control group with no enhanced self-efficacy component. They will then be given access to online questionnaires to complete. After completion of these questionnaires, they will visit the ABC Lab to complete a session of PMT focused on the techniques of child-led play and effective instructions. After completing the PMT session, those in the SE group will receive positive feedback regarding their parenting that is designed to increase their parenting self-efficacy, whereas those in the control group will not receive this feedback. Parents will then interact with their children in a parent-child interaction involving child-led play and clean up of toys. Researchers will code this interaction for PMT strategy use. Parents will then be debriefed, and families will be thanked for their time. Parents will receive a $20 gift card honourarium and their child will get to pick out a small toy.

### Project Description:

Responsibilities include recruiting participants, telephone screening with participants, administering questionnaires with participants, conducting study visits with participants, coding parent-child observation data, and entering and analyzing data. Recruiting, telephone screening, administering questionnaires, conducting study visits, coding observation data, and managing and entering data would occur throughout the duration of the award.

### Benefits for student involved in research:

Students involved will be able to participate in research with applied implications relevant to child psychology, and will be directly mentored by Dr. Jiang. Students will gain research training and skills in a variety of aspects of the research process. In addition, they will gain experience in interacting with parents as well as children with and without attentional and self-control challenges. Students may also learn knowledge and skills relevant to evidence-based behaviour management of children with inattention and/or hyperactivity/impulsivity. Furthermore, there may be potential for students to contribute to publications, presentations, and other modes of disseminating findings.

### Supervising Academic:

Dr. Yuanyuan Jiang, Assistant Professor, Educational Psychology
PROJECT #4  Small cards, big picture: Constructing students' narrative frameworks in Canadian history

Project Abstract:
The main objective of this research is to conduct a small-scale study that investigates the extent to which the systematic use of historical thinking pedagogy and resources strengthens students' ability to construct broad, coherent, and plausible narratives about Canadian history. Furthermore, we are interested in investigating the extent to which the narratives that students in Québec and Alberta write about the history of Canada are similar or different.

Project Description:
Although most history teachers agree that one of the purposes of school history should be to help students develop historical narratives and synoptic “big picture” overviews of the past, many K-12 students leave school with bits and pieces of historical knowledge, facts, figures, anecdotes, and stories. Few students can assemble the historical knowledge accumulated throughout their school history experience into coherent narratives, and those who can often produce narratives that are formulaic, simplistic, and naïve. Moreover, there is a dearth of research that examines teaching methods and resources that might help facilitate and accelerate students’ ability to construct those narratives.

History educators have suggested that historical thinking pedagogy and resources focused on developing students’ historical narrative frameworks might address the gaps and distortions in students’ historical knowledge and help them turn disconnected facts and anecdotes into broad, coherent, and plausible large-scale narratives.

This research study focuses on the following questions:
1. To what extent does historical thinking pedagogy and resources designed to strengthen students’ historical narrative frameworks improve their ability to construct broad and coherent narratives about the history of Canada?

2. To what extent are the narratives that students in Québec and Alberta write about the history of Canada similar or different?

Study Design and Data Collection Methods: One Grade 5 and one grade 10 class in Edmonton, Alberta, and one Grade 5 and one grade 10 students class in Chicoutimi, Québec will complete the following activities: pre-test, five 60-75 minute lessons taught by the researchers, post-test, and post-test interviews with five students.

Barton (2008) predicted that the most useful findings in future history education research will likely come from studies that involve collaboration between teachers and researchers in carefully planned design experiments, or what are also referred to as “design-based research” (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003; Herrington, McKenney, Reeves, & Oliver, 2007). The proposed study utilizes a design-based approach in order to test innovative historical thinking pedagogy and resources in iterative and continuous cycles of design, enactment, analysis, and redesign in a real education setting (Bell, 2004; Cobb et al., 2003; Collins, 1999; Kelly, 2003; The Design Based Research Collective, 2003).
The study design includes a pre-test, five 75 minutes sessions with students, a post-test, and post-test interviews with five students. In Session 1 students will be asked to complete a pre-test that is comprised of three parts. In Part A students are provided with a variety of diagrams that illustrates the development of Canadian history and they are asked to choose the diagram that best describes the history of Canada. The purpose of this task is to stimulate students thinking about Canadian history, and to see how they think about development over time in Canadian history. In Part B students are given the following prompt: “Using what you know from school as well as what you know from elsewhere, describe Canada’s history from the beginning to the present. Please limit your description to a maximum of 3 pages.” In Part C students are asked to create a title that captures the main message or theme of their description of Canadian history.

In Sessions 2-6 the researchers will teach five 60-75 minute lessons over a month-long period. In each of the five lessons students will be organized into groups of 2-4 to complete activities designed to strengthen their understanding of the second-order historical thinking concepts evidence, continuity and change, and historical significance, that are essential for constructing broad, coherent, and plausible historical narratives. In these activities students will use 50 cards that focus on significant events in the history of Canada from pre-history to present day. The front of each card includes a short description of a significant historical event in Canadian history, and a visual source (photograph, map, political cartoon, or painting) that offers clues about the event and when it occurred. The back of the card includes the date of the event and further description of the event and its consequences.

In the last session of the study (Session 7) students will be asked to complete a post-test that is comprised of the same three parts as the pre-test. After the post-tests are complete we will conduct a preliminary analysis of the pre and post-test narratives and identify five students from each of the four classes (20 total) to interview within two weeks of completing the post-test. We hope to interview students whose narratives improved, stayed relatively similar, and declined from the pre-test to the post-test. In the interview students will be asked to compare their pre-test and post-test narrative, identify the similarities and differences, and explain why they are similar and different.

Benefits for student involved in research:

I am planning to collect data for this research study in a grade 10 class and a grade 5 class in Edmonton Public Schools between April 1-May 31, 2018. The data collection will include a pre-test, five 60-75 minute lessons taught by the researchers, a post-test, and post-test interviews with five students.

Depending on when the student is available to begin working on this research study, there is the potential to be involved in many aspects of the research project including data collection, data organization and transcription, data analysis, and initial stages of the writing process. After the data collection is complete students will be able to work both on-site and off-site to complete the required 15 weeks/330 hours.
The Roger Smith student selected to join this research project can expect to experience the following benefits:

- Increased knowledge of numerous aspects of history education including curriculum, teaching, learning, assessment, and historical thinking.
- Increased knowledge of Canadian history.
- Increased knowledge of the process of conducting educational research including: data collection methods and techniques, research study design, data organization, storage, confidentiality and privacy, data analysis, and the writing process.
- Interview and transcriptions skills.
- Students will be expected to co-write a teacher’s professional development article on the research study, and will develop their ability to write for a professional teacher audience.
- Will develop and hone communication and collaborative skills by working with other researchers and graduate students who will be working on the project.
- Given that another researcher who is part of this project is going to be conducting a twin study with a grade 5 and 10 class in Québec, it will be an asset if the Roger Smith student is bilingual or has some proficiency with speaking, reading, and writing French, although it is not required. It is expected that participation in the study will improve the students’ ability to speak French.

**Supervising Academic:**
Dr. Lindsay Gibson, Assistant Professor, Elementary Education
PROJECT #5
Curricular Resources and Activities for Exploring Sustainable Well-Being in English Language Arts Classrooms

Project Abstract:
Recent years have witnessed an increased concern with student well-being in Canadian schools and also with sustainability (Deer et al. 2014). According to Kjell (2011), “sustainable well-being” links psychological well-being to ecological consciousness and care. This project will identify resources and activities for the exploration of sustainable well-being and well-becoming in English language arts classrooms. In other words, rather than identify curricular materials, resources, and activities related to well-being on the one hand, and ecology on the other, this project specifically seeks to examine curricular possibilities that speak to their interdependence and integration. We will research and analyze children’s and adolescent literature and also media that English teachers might introduce into their classrooms in order to support conversations with students around sustainable well-being. Additionally, we will identify possible reading, writing, listening, speaking, viewing and representing (the 6 strands of ELA) practices and activities connected to the theme of sustainable well-being.

Project Description:
Within the 15 weeks (or about 330 hours), the undergraduate student will be involved in: a) conducting research on, analyzing, and creating an annotated bibliography of children’s and adolescent literature and also media that explores possibilities and complexities of sustainable well-being; b) conducting research on possible existing ELA practices and activities that teachers might incorporate into their classrooms and also collaborating with the faculty member on identifying/creating potential new ones; c) contributing to the creation of a book chapter or journal article of potential curriculum materials and activities for ELA classrooms. The student will be required to be available for regular face-to-face meetings in order to determine and discuss findings and progress.

Benefits for student involved in research:
Through this research project, the undergraduate student/pre-service teacher will gain greater insight into and knowledge of what constitutes sustainable well-being and how English language arts education might contribute toward conversations on this subject. The student will become armed with understanding and resources that they will be able to take into their own teaching practice. Moreover, in contributing to a book chapter or journal article, they will have the opportunity to develop their writing abilities and add to their curriculum vitae.

Supervising Academic:
Dr. Claudia Eppert, Associate Professor, Secondary Education
## Project Abstract:
Computational Thinking is a problem-solving process that draws on computer science concepts and that formulates problems in a step-by-step manner, so they can be carried out by a computer (Wing, 2006; 2008; 2011). Moreover, computational thinking (CT) involves knowing how to use data, models, simulations, and algorithmic thinking to formulate and solve problems. Several instructional methods employed by CT focus on teaching coding to students. However, there is a paucity of CT assessments that would unequivocally inform teachers as to the success of these instructional methods. This research project aims to develop new assessments of computational thinking (CT), as well as to compile a list of existing assessments. Thus, the current research aims to discover the knowledge, skills, delivery, and assessment methods required to foster independent learners in the 21st century. The short-term objective of this research project is to compile a list of assessments that have shown success in measuring students’ CT skills. This will constitute the first step of a long-term research program aiming to develop CT assessments that will help teachers evaluate CT learning and that will help students learn CT concepts during the assessment.

## Project Description:
In the first few weeks, students will locate peer-reviewed articles on computational thinking assessments and start summarizing these articles in terms of the types of assessments featured. Then, the assessments of coding will be scrutinized. Specifically, the assessments will be classified by the computational concepts and algorithmic constructs targeted (if statements, loops, sequencing, etc.). The student will also help analyze data collected during the Winter 2018 term from a class of educational technology undergraduate students. The student will learn about data cleaning, generating descriptives, visualization, and statistical analyses. Finally, the student will help write the results, focusing on the methods and literature review sections, and submit them to conferences, as well as present the results at a local conference.

## Benefits for student involved in research:
This research project will benefit the student in several specific ways. First, the student will be fully immersed in the research conducted in my laboratory, learning first-hand about experimental study design, planning, and development of a theoretical framework for computational thinking in relation to academic achievement and learning outcomes. The student will participate in regular weekly research meetings that will provide the skills to conduct independent, as well as collaborative, research: planning studies, discussing research methods, critically reviewing recent research articles, analyzing and interpreting data, presenting research and getting feedback from the group.
I will work to develop the student’s methodological knowledge and organizational skills that will enable the student to plan and complete future research projects, even outside academia.

Additionally, the student will also gain experience in data coding and scoring, cleaning, visualizing, and analysis, as well as in writing academic papers. Specifically, under my guidance, the student will learn to conduct (1) correlations to examine relations among CT outcomes and data collected from the game (e.g., time on task); (2) factor and cluster analyses to highlight students’ different CT learning strategies (e.g., finding clusters of children who have similar CT learning skills); (3) multivariate regression and multilevel modeling (MLM) analyses to predict CT skills/attitudes from IQ, gender, age, socio-economic status (SES). I see this collaboration as the basis of recruiting the student into our masters program, if the student expresses interest in pursuing research. I think this is a great opportunity for myself and for the student to grow and develop our skills together, creating a long-lasting research partnership.

I have supervised high-school (WISEST – Women in Scholarship, Engineering, Science, and Technology, as well as HIP – High-School Internship Program) and undergraduate (IIP – Industrial Internship Program) interns for many years. I have found it to be a very rewarding research experience culminating with several research papers co-authored with these students and I am looking forward to future such research collaborations. My former Roger S. Smith student (2016) had the opportunity to develop mentorship skills by co-supervising with me two high-school students between July 4 and August 15 and to also be mentored by a PhD student working in my lab. Together with the Roger S. Smith student and the PhD student, I have published two extended abstracts at the London International Conference on Education (2016), with both students taking the lead on each paper. The paper led by my former Roger S. Smith student (Ava Solez) won the Best Extended Abstract award at this conference.

Supervising Academic:
Dr. Maria Cutumisu, Assistant Professor, Educational Psychology
**Project Abstract:**

Autism Spectrum Disorder (ASD) is one of the most common neurodevelopmental disorders. Recent estimates from provincial studies suggest that it impacts approximately 1-2% of Canadians (Ghali et al., 2014). Despite increased understanding of the strengths and challenges faced by this population, we still have much to learn. As an example, there is a dominant view in popular culture of the “autistic math whiz”—think of socially inept physics genius Sheldon Cooper from the hit TV series, The Big Bang Theory (Lorre et al., 2016). This portrayal and others like it have created a stereotyped representation of individuals with ASD as being excellent mathematicians. However, research suggests that many people with ASD struggle with math (Brown et al., 2017). The stereotyped view is a problem because it raises expectations to unrealistic levels leading to great disappointment and frustration in students with ASD who are not mathematically gifted and in their parents. As such, a better understanding of the rates of math giftedness and math disability among children with ASD is crucial. To address this issue, we will test the mathematical abilities of 105 children with ASD, ages 5- to 17-years-old. We will then compare the rates of high- and low-achieving children in our sample to the expected rates of high- and low-achievers in math found in the general population. To do so, we have developed a strong investigative team consisting of researchers, trainees, and prominent community partners who will facilitate the project and effective dissemination of new knowledge arising from it. We expect that a high percentage (up to 40%) of young children with ASD have math learning difficulties. By establishing how common math problems are in this population, this research will inform the judicious allocation of funding and educational resources to best support the academic success of students with ASD.

**Project Description:**

List of duties: coordinate lab activities; run participants in the Math and ASD study; schedule families to participate; help with recruitment; participate in training on how to administer test batteries; code and score data; and organize research materials in the lab. Work hours are flexible and highly varied. You can expect to spend some time running participants (i.e. children with ASD) at the participants’ homes (or at the lab) during afternoons, evenings, and/or weekends. However, most of your work will take place in our brand new lab that includes a waiting room for families and three testing/student rooms.

**Benefits for student involved in research:**

You will gain knowledge in psychological research methods and psycho-educational testing while learning about cognitive models of math development and working with youth with ASD. You will also gain practical experience in what it means to conduct research, as you will participate and gain experience in activities similar to those of a graduate student, such as: participant recruitment, communicating with parents, scheduling appointments, running participants through protocols, managing participant data, and information flow. Additionally, you will practice scoring assessments, analyzing data, and entering data, while ensuring the highest standards of validity and reliability. This work will give you a glimpse into what it would be like to work as a psychologist who conducts psycho-educational testing with children and youth. Finally, exposure to current, relevant research and spending time critically evaluating research methods is another great benefit for students working in this lab!

**Supervising Academic:**

Dr. Heather Brown, Assistant Professor, Educational Psychology
PROJECT #8  Transitions of high school youth living in rural and remote locations in Western Canada: Ministries of Education perspectives

Project Abstract:
Youth-focused studies have explored aspects of sociologies of education, structure and agency, and connections to post-secondary education decision-making. There is, however, minimal scholarly research about the experiences of youth living in Western Canada’s rural and remote locations that examine their career, educational, and vocational aspirations and ambitions. Obtaining preliminary information from the ministries of education located in Western Canada (i.e., Yukon, Northwest Territories, British Columbia, Alberta, and Saskatchewan) is pertinent data that will become the foundation for a future in-depth research project involving youth, teachers, school administration, and community organizations. Data from Western Canada’s ministries of education representatives will highlight historical and current policies and curricula about high school vocational programming and career education designed to, ideally, prepare rural youth for transitions to adulthood.

Project Description:
The undergraduate research assistant will work with a graduate research assistant and me to help review and analyze the literature and, when possible, participate in the telephone/Skype interviews. The undergraduate research assistant will actively participate in data analysis, research discussions, and preparation of initial dissemination projects.

Benefits for student involved in research:
Benefits for the undergraduate research assistant because his/her engagement with this research project are: a) the student will be actively involved as a research assistant in the literature review and data-gathering stages of the research process, b) the student will learn about research methods and gain knowledge and skills for gathering data within the ethical guidelines set out by the Ethics Review Board, c) the student will complete ethics training, and d) the student will contribute to his/her written and oral communication skills. The undergraduate research assistant will be working in an environment that provides opportunities to become more involved in the university community as well as explore ideas about how future graduate studies might advance his/her career goals.

Supervising Academic:
Dr. Bonnie Watt, Professor and Director of the Centre for Research for Teacher Education and Development, Secondary Education
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<td>All historical accounts used in social studies classrooms, by their very nature, will be simplifications of the past. Curriculum developers, textbook authors, and teachers are forced to make difficult choices about how and what to include. This project is concerned about the portrayal of villains, and how those portrayals can influence student judgements about those implicated in historical and contemporary atrocities. Students find ethical issues in history interesting (Ammert, 2017), and, as such, there is an opportunity to engage students in ways that provide an opportunity to pay careful thought to troubling pasts, with a view toward working toward more peaceful social change in our own times. Drawing from theoretical work on villainification (van Kessel &amp; Crowley, 2017) and a textbook study about the villainification of Hitler in Alberta textbooks (van Kessel &amp; Plots, manuscript under review), this project will develop open-source resources aimed at teachers in Canada and the United States.</td>
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<td>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) familiarizing themselves with historical events and actors as needed (e.g., Indian Residential Schools, the Second World War, the Cold War, the Civil Rights Movement); c) co-authoring lesson plans and resources that will be posted in the Education &amp; Research Archive (ERA) at the University of Alberta.</td>
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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.

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<td>The undergraduate student will develop a deeper understanding of social studies curriculum, in particular how systemic harm is articulated in textbooks and beyond. Thus, the student will become more familiar with common curricular topics. Also, the student will have an opportunity to contribute as an author of teacher resources, thus honing their writing skills and adding a line to their curriculum vitae.</td>
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<th>Supervising Academic:</th>
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<td>Dr. Cathryn van Kessel, Assistant Professor, Secondary Education</td>
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Project Abstract:

Mindfulness is described as a "conscious, moment-to-moment awareness, cultivated by systematically paying attention on purpose in a particular way." Mindfulness can be taught through a structured program of instruction, including mindfulness meditation, mindful yoga, heartfulness and gratitude exercises, and discussion of mindfulness practices. School-age children who receive mindfulness instruction demonstrate improvements in executive functioning skills such as attention, working memory, and emotion regulation. They also demonstrate better self-awareness and self-compassion. Through these direct influences, mindfulness training may also contribute positively to children’s mental health; their relationships at school with teachers and peers; and their school engagement and achievement. Similarly, teachers who implement mindfulness practices in their classrooms, or who receive mindfulness training, experience greater wellbeing and resilience to stress and burnout, as well as better teaching self-efficacy and classroom management skills. While this body of evidence supports implementing mindfulness practices in schools, most of this research is based on efficacy trials. It remains unclear how mindfulness practices are being implemented under “real-world” conditions without researcher intervention. What dosage or level of implementation is required to see the effects of mindfulness practices also remains unclear. A five-year, three phase approach is planned, with earlier phases informing latter phases. Phase I is a scoping and needs assessment of the range of mindfulness initiatives offered in Edmonton-area schools. Phase II is a case-control assessment of schools that implement school-wide mindfulness practices relative to schools that do not offer mindfulness. Schools participating in Phase II are identified through Phase I teacher and administrator interviews. Phase III will be an implementation and evaluation of a mindfulness-based intervention (MBI) that combines the most effective and feasible mindfulness practices identified in Phase II. Intervention schools can serve as their own controls, with assessment pre- and post-implementation of the MBI. We envision a prospective stepped-wedge cluster-controlled trial in which the MBI is offered in intervention schools, and the comparison group will be comparable schools that do not offer the MBI. Analysis will occur within and between schools to measure the impact of mindfulness practices on children and teachers. Measurements include quantitative, qualitative, and observational assessments. Process indicators include: types of mindfulness practices, their frequency and duration, and characteristics of the implementer. Outcome indicators include: child self-awareness, self-compassion, mental-health, school engagement, and peer victimization, as well as teacher burnout and classroom climate. Mindfulness may promote child and teacher wellbeing and should be rigorously assessed to ensure evidence-informed decision-making for our local Alberta context.
**Project Description:**

For the months of May through early-June, student will participate in quantitative and qualitative school-based data collection in Edmonton-area schools. This will include leading and facilitating Draw & Write lessons as well as surveys with grade Kindergarten to 9 students. Most work will take place off-site at schools, with some work taking place on campus, such as organizing data, some data entry, and attendance at interdisciplinary research meetings with researchers from Public Health, Kinesiology and Sports Medicine, Education, and Medicine. Work during the months of mid-June to the end of July will consist of participating in basic data analysis and data dissemination (including creating school newsletters for participating schools). Additionally, work may involve development of a web-based mindfulness toolbox suitable for K-9 educators. All work will take place Monday to Friday during school hours. For the months of May and June, it will not be appropriate for students to have other full-time employment elsewhere. Access to a vehicle would be preferred.

**Benefits for student involved in research:**

Student will be part of and have opportunities to learn from academics from multiple disciplines. Student will also contribute to research planning meetings and be involved with innovative qualitative and quantitative data collection techniques. Students will also assist in data synthesis and participate in the creation of user-friendly knowledge translation media (e.g., newsletters, websites).

**Supervising Academic:**

Dr. Veronica Smith, Associate Chair, Educational Psychology