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Jannik Haruo Eikenaar
Managing Editor

I

n 2018, the STLHE conference took as its theme “Pedagogical Innovation: Adapting Practice to Evolving Cultures.” Following the conference, presenters were invited to revise their work as journal articles and, as might only be expected of a journal that seeks to capture that work, this edition of CELT includes a wide range of articles about learning and teaching.

The first text here was the last presented in Sherbrooke: the closing plenary delivered by the 2018 3M Student Fellows entitled “Whose Voice is Missing? From Storytelling to Transformation in Teaching and Learning.” As attendees can attest, it was a powerful event, and we hope to recapture some of the impact of their voices here on the page.

In Section I of this edition, authors write about adapting practice in the evolving cultures of the classroom. Gail Frost and Maureen Connolly, in “A Pedagogic Strategy for Instructors of Post-Secondary Sector Students Returning to Learn from Concussion,” present a strategy for a specific form of differentiated instruction. Jenessa Louis Shaw and Kenneth Cramer, in “Relation of Personality to Grades and Grading in Undergraduate Peer Review,” discuss their findings with regard to an in-class learning tool. Next, in “Student Anxiety and Evaluation,” Kerry Hull et al. consider the question of adapting learning assessments given the increasing prevalence and severity of academic-related distress among students. Robin Elizabeth Reid describes her work in facilitating an intercultural learning opportunity for students in “Adapting Curriculum for a Changing Context: Place-Based Pedagogies in Tourism,” and Jessica Motherwell McFarlane describes an innovative approach to enhancing learners’ understanding of Indigenous Peoples’ testimonies in the Truth and Reconciliation Report (2015) in “Using Visual Narratives (Comics) to Increase Literacy and Highlight Stories of Social Justice: Awakening to Truth and Reconciliation.”

In Section II, we have included four articles on experiential learning. First here is Giulia Coletta et al.’s “Enhancing Undergraduate Student Self-Efficacy and Learning with a Community Service Learning (CSL) Nutrition Workshop Assignment,” followed by Obidimma Ezeugika’s “Reflections on Experiential Learning in an Undergraduate Global Health Course.” Next, Kathy Snow et al. share different perspectives on implementing experiential learning in “Lived Experiences of Online and Experiential Learning in Four Undergraduate Professional Programs,” and Robert Sproule, Dave Drewery, and Judene Petti describe their work in supplementing students’ self-reporting in “Development of a Rubric to Assess Lifelong Learning in Work-Integrated Learning Reflection Assignments.”

Section III has instructor practice as its focus, and a subtitle for this section might well be humility and optimism. The section begins with Judy Bornaix et al.’s “A Decade of Outdoors Experiential Workshops: Facilitator Reflections and Tips,” continues with “Train Wrecks: 3M National Teaching Fellows Explore Creating Learning and Generative Responses from Colossal Failures” from William B. Strean, Patrick T. Maher, and Kim Brooks, and concludes with Bev King et al.’s “Multidisciplinary Team-Based Model for Faculty Supports in Online Learning.”

In Section IV, the articles are grouped in the topic of institutional culture. First, Lindsay Shaw et al. identify barriers and pathways to a strong institutional teaching culture in “From Perception to Practice: A Qualitative Exploration into Institutional Teaching Culture.” Next, Michelle Yeo et al. describe their model for curriculum

It has been a tremendous pleasure to work with the other members of CELT’s editorial board, Brendan D’Souza, Francis Langevin, Cathi Shaw, Zoe Soon, Jordan Stouck, and Claire Yan, as well as our excellent copy- and layout editor, Florence Belanger-Jones. They join me in thanking all the reviewers, as well as our translator, Mahigan Lepage, for their work on this edition.

Finally, of course, we extend our thanks to the authors: those who are brave enough not only to make efforts to adapt their pedagogies to evolving cultures but also to share those efforts with the rest of us.
Whose Voice is Missing? From Storytelling to Transformation in Teaching and Learning

Amy Blanding, Deborah A. Jenkins, Michael Graeme, Yahlnaaw/Aaron Grant, Mohammad Asadi Lari, Alexandra Meikleham, Cara Samuel, Chloé Soucy, 2018 3M National Student Fellow Cohort

Each year, over a hundred students undergo the process of putting together an application dossier for the Society for Teaching and Learning in Higher Education (STHLE)’s prestigious 3M National Student Fellowship (3MNSF). The 15-page dossier includes a description of leadership qualities and experiences as well as a description of educational challenges, and notably, an answer to the massive question: “What are the biggest challenges facing post-secondary education in Canada, as a whole? If you had the resource capacity, how would you implement concrete solutions to these challenges?” For each conference, ten 3M National Student Fellows are chosen and represent a diverse cross-section of disciplines, schools, and geographic areas. These students are invited to attend the STHLE annual conference where they are introduced to each other for the first time and tasked with the responsibility of developing a closing plenary over the following four days. Rather than take a prescriptive approach to educational change, this year’s group—comprising biologists, artists, and business and nursing students among others—decided to utilize their plenary to voices and encourage a more open dialogue with those attending their conference. The journey was both collaborative and transformative for the National Student Fellows, and encouraged the opening of a rich dialogue between students and teachers at the end of the plenary. This paper is a transcript of the plenary and represents the group’s first step towards contributing a sustainable change to the system. Responses to the work are encouraged and will be welcomed as a part of the group’s ongoing commitment to transforming education in Canada into the future.

Whose voice is missing? - Amy Blanding

“I am no longer accepting the things I cannot change; I am changing the things I cannot accept.” —Cara Samuel

She told me she was stupid. She told me she will never be successful. She told me that we would never be seen as equals. —Chloé Soucy

When I arrived in the Arctic, an Inuit Elder asked, “How many footsteps do you have on this land?” —Debbie (Deborah) Jenkins

I grew up with an education system that silenced the voices of the Sinixt First Nation whose territory we were learning on. —Michael Graeme

Dii Xaaydaći ga. Dii jaada ga. Hla uu gyaaga hlaxang-gulxii jii — I am Haida. I am a woman. I am my work. —Yahlnaaw / Aaron Grant
My grandfather, whom I never got to meet, inspired me to represent the voiceless, those who have been silenced. —Mohammad Asadi Lari

I am an engineer. I am an artist. I am a woman. I am a human. —Alexandra Meikleham

Land Acknowledgement: Taadsxwa. In my Skidegate Haida language, Taadsxwa translates to “welcome” in regard to welcoming a new or old friend into your home. Although I am not from this land of the Abenaki peoples and Wabanaki Confederacy, I understand the importance of acknowledging the land on which we are on. I would like to say Haawa (Thank You) to the peoples of this land for allowing us to learn, grow, and present here. - Yahlnaaw

Introduction

If you walk through a forest on any given day, there is the possibility that you will find yourself treading on fungi. Popping up here and there will likely be a variety of oddly shaped and differently coloured mushrooms. On the surface, they often stand alone. But if you dig just below the surface you will find a networking system that is so vast, so interconnected, and so significant; a web of mycelium that singlehandedly regulates the earth’s ecosystems.

Our 3M student cohort comprises profoundly unique individuals. We all have vastly different stories as to how we ended up in this place. But it didn’t take much digging below the surface to discover how interconnected our stories are, and how many synergies exist in our approach to educational leadership.

As a group coming together and delivering a plenary panel, we seek to answer questions that affect all of our work. How are we interconnected? What common threads are woven throughout our stories? What problems do we share? What expertise can we draw on? And how do we collectively work together to build something greater than the 2018 cohort—something that will shift the course of the teaching and learning community?

What became clear through this process was the importance of storytelling, a long-standing and wildly effective form of communication that has been sorely underutilized in Western educational institutions. Stories connect us with our past, with our emotions, and they draw communities together. Here, we share some of our stories with the goal of calling attention, and perhaps bring a new perspective to some of the big questions plaguing the post-secondary world today. Questions many people in the teaching and learning community are trying to answer. Questions that we are going to begin unpacking: Whose voice is missing? What makes your work, your work? How can we engage and support our communities, share knowledge, and build collaborations? And how can we ensure the voices of marginalized people are heard and honoured in higher education?

What makes your work, your work? (Mohammad, Alexandra, Yahlnaaw)

Yahlnaaw: Myself situated in my culture, language, and community.
Mohammad: Balancing my role as a global citizen, and as a member of my community.
Alex: Having my values reflected in my work.

Where have you come from?

(translating): Hey! Wonderful people! My name is Yahlnaaw which broadly translates to “leads an exceptional life.” I am from Skidegate, Haida Gwaii. I was born and raised in Prince Rupert on Ts’msyen territory. I am attending post-secondary education at the University of Northern British Columbia in Prince George on Lheidli T’enneh territory. My Grandmother’s name is Taawgiiwat. My Mother’s name is Jaaskwaan. My father’s name is Bruce. My sister’s name is GiidahlGuuhleay. I am a member of the Raven Clan and we have many crests as we are from a Chief’s family.

Two years ago I was accepted into the Psychology Honours Program at UNBC supervised by the current Chair of the department, Dr. Cindy Hardy, and co-supervised by a close friend and colleague, Edōsdi / Dr. Judith Thompson. I wanted to combine my two academic passions of First Nations Studies and Psychology and came up with the research topic, “Decolonizing Psychology through Story” as language and story revitalization are crucial aspects of my research. After months (and many sticky-note mind maps) I was sitting on my bedroom floor and realized that my proposed research topic was not only difficult to put together - but it was impossible.

Psychology is a colonized discipline. Psychology came to the land we now call Canada with the colonizers. Therefore, in my opinion, Psychology cannot be decolonized because it was never colonized in the first place because it is a colonial discipline. If I "decolonized" Psychology, it could not be Psychology anymore—it would have to be something else.

This lead to me to think about colonization as a whole. A prominent part of colonization is enforcing one’s worldview onto another person’s in which the imposed worldview does not belong. In a sense, by enforcing an Indigenous worldview onto an area of study in which it did not belong in the first place, I could be doing something along the lines of colonizing Psychology. However, it must be noted that Edōsdi and I state in our “Decolonizing our Colonized Minds: Educational Systems” presentation and paper that true decolonization revolves around land and land repatriation.

This made me think about why I wanted to do Psychology in the first place: to work with Indigenous nations. There are studies which indicate that Indigenous Nations, rich in culture and language, have very low rates of suicide whereas Indigenous Nations who have had their culture and language stolen have very high rates of suicide. The reason for languishing culture and language is due to colonization. Therefore, by working with Indigenous Nations in regard to Psychology, I would be using a colonized area of study to work with the peoples suffering the effects of colonization—which was not going to work. We all have different roots, but in our work together we have discovered how important this has been to guide our inspirations.

My ideas and realizations above have also been a prominent component of Edōsdi and my presentation and upcoming paper, “Decolonizing our Colonized Minds: Educational Systems” as this revelation process was the beginning of truly decolonizing my colonized mind. These revelations are also discussed in my 3M application package.

Mohammad: Just like Yahlnaaw, my roots have played a fundamental role in guiding my aspiration. I spent most of my childhood in the UK. Yet, when I was 10, my mom gave up a faculty position at Cambridge for me and my sister to experience life in our homeland: Iran.

I couldn’t be more grateful for her sacrifice. It gave me a chance to reconnect with my roots, my family. It allowed me to find my biggest inspirations in life: my grandmothers.
My maternal grandmother broke off with her family for two decades, because they couldn’t take her wanting a higher education for her four children. Her three daughters and one son all became either physicians or pharmacists. She is the inspiration for perseverance and the value of education, and the incredible role of a great matriarch.

My paternal grandmother on the other hand was an MP of twelve years, in the Iranian Parliament. One of only three females. She lost her husband, and raised her four children. She lost two of her three sons to cancer, yet she is one of the strongest people I’ve ever known, but also one of the most humble. She is an inspiration in our extended community for how humility and legacy can go hand in hand.

For those in this room, and those outside, our roots play a critical role in who we are.

So who are you?

Alex: I’m an engineer. I’m an artist. I’m a woman. I’m a human. Since joining engineering I’ve tried to figure out how these interconnected and sometimes conflicting aspects of my “self” fit into a field that traditionally hasn’t had a space for this.

My name is Alex—which means people in my field often assume I’m a male before they meet me. For some reason I like it this way. It helps me to blend in and perhaps helps to prevent certain assumptions from being drawn. Thanks to my mentors I’ve learned how to better understand my role as a female within engineering, which is even today not fully embraced or accepted.

We are often encouraged to keep ourselves and our disciplines separate; however, I’ve discovered how important it is to me to see both of these aspects reflected in my work.

Mohammad: Just as you said Alex, I think our disciplines should also reflect who we are and how we understand the world to be. When I first wanted to pursue medicine in junior school, I saw medicine being limited to a science. Over the past three or four years, I’ve learned that it’s an art - an art of communication, an art of compassion, an art of humanity.

Yet, in the stubborn field of medicine, this can be neglected. I’ve tried to expand my horizons through involvements that aren’t traditionally associated with the field: civic engagement, social entrepreneurship, youth advocacy and the humanities. While there is resistance in some fields, there is also great hope.

Where are you going?

Alex: When I left my career to study engineering, I was lucky to meet key mentors who were critical in helping me to discover the scholarship of teaching and learning in engineering. This work has been incredible because it has allowed me to continue to engage my whole self, learn, and encourage others to do the same. It also has given me an opportunity to help others incorporate themselves into their work.

Last year I became a teaching assistant in a design class. One day I asked the students which global problem they were most passionate about solving. One student raised their hand and asked: “As an engineer, or as a human?”

Yahlnaaw: I am my work. I am my community, my work is important. I believe that I have 3 mentors: My Nanaay (Grandmother), Edōsdi / Dr. Judith Thompson, and Dr. Heather Smith. My Nanaay helped me realize that maybe we do not need Psychology and that maybe we need our language – the foundations of culture and community. I then began seriously learning my Skidegate Haida language. Nanaay tells me that I am my community and I am my language. Edōsdi tells me that I am my work. Heather tells me that my work is important.

That’s what makes my work my work... So whose voice is missing? Well, in this case, it was my own voice. By learning my language and guidance from
my mentors, I am able to regain my voice—my language—as a Skidegate Haida woman. In Skidegate Haida, we have a word for language which is Kil. Our word for voice is also Kil. By learning my language I learned my voice.

As Edōsdi says, “How can we decolonize our minds when we are thinking in the colonizer's language—English?” What I do is language revitalization to work with our rising Indigenous brothers and sisters so they may find their voice—their language.

Alex/Yahlnaaw/Mohammad: Where have you come from? Who are you? And, where are you going?

How can we engage and support our communities, share knowledge and build collaborations?

Debbie: Students are part of an academic community, but also a broader community that provides rich fabric for learning, conducting research, and for sharing our experiences and findings. My personal inspiration has been global. Around the world in classrooms, field camps, remote villages and wild places, I have been motivated and challenged. Rich and diverse experiences have highlighted the value of inclusiveness, different knowledge systems, and unique perspectives. For me, creating strong links across this space is critical for building meaningful relationships, collaborations, and deepening our understanding.

I am a biologist in the Canadian High Arctic, where building relationships can be challenged by different languages, different cultures and even different ways of knowing—challenges that for me have brought immense growth and rich lessons. Inuit have a deep connection to the land with expertise and knowledge that is passed across generations. Once I recognized this—once I understood how meaningful it was to have “many footsteps on the land”—my own world expanded.

What did I learn? That Traditional Knowledge and expertise can be powerful and that including the community in scientific research provides both important and unique information. These insights led me to become more involved in my Arctic and southern communities—sharing knowledge and concerns about wildlife, and eventually developing community-based research programs that recognized local experts and talent. I am a scientist and these programs, from Caribou Health Monitoring with local hunters and Elders, to Bioblitz Waves with student and community experts, recognize our combined strengths, answer our combined questions, and empower our collective communities. Notably, these initiatives laid the foundation for additional community outreach and stewardship programs, and have informed a number of studies including my PhD.

Such win-win situations are powerful but they can be rare. At university, I find that research can literally be trapped in the academic system. That is, maybe we share our research with our labs, our departments, even the academic community, but the bridges are limited and rarely extend across disciplines or to the general public.

But let’s imagine why these bridges are important—how the health of our communities, every one of our nations are affected. For example, the exclusion of science and Traditional Knowledge from policy and planning has been a recurring issue in Canada, the USA, and around the world. This has led to slow action on critical issues like climate change, species at risk, and habitat loss. And—what about the implementation of sound action? How do we get people to act on climate change if their participation is limited? How do we create policy and practices that will be implemented by our governments if the people who vote are not well informed or effectively engaged? Indeed, an informed and engaged public is
necessary - to advance change and impact the very practical and imperative development of sound policy, regulation, and action.

Mike: The pursuit of education in my experience is all about the brain: r-e-t-a-i-n, how much can you retain? And standing out is about your brain being better than other brains. When it comes to exceeding expectations in education, you’re going to have to compete for individual success, not collaborate for a prosperous community.

I don’t know about you but I tend to renounce my community participation as soon as the first assignment hits each semester. I board up the doors of my room, earplugs in, bye, world.

Knock-knock.

Shhh, I’m trying to memorize this two-way exchange between student and university, where I give financial resources to the institution, which then returns educational resources back to me. I accomplish the work, which I give back to the university, and then they give me my GPA—and if that GPA is good, I can use it as a resource to get back into grad school.

This misses an opportunity for the student to act as a community resource in the learning process. What if students were treated as assets for community rather than mere harvesters of knowledge?

Think about all the social, economic, cultural and ecological projects across Canada and beyond that could swell in potential!

Let me tell you a story. I was 19 years old working as an assistant forestry technician in the West Kootenay. I was given the task of helping chart forestry roads. One morning I came into the office and my employer said we were going to spend the week working on Perry Ridge, and within a few hours we were flying in a helicopter over a blockade led by the Sinixt First Nation to protect their sacred mountain. The fact that the professionals I was working with had studied in post-secondary institutions—many of them locally—and the fact that I was born here and had completed K-12 education here without any idea who the Sinixt were or that this mountain was sacred, points to a shortcoming in many respects. Education is one of them. We grew up with an education system that silenced the voices of the Sinixt First Nation whose territory we were learning on.

So anyways, I quit my job and went to try my own path at post-secondary to see if I could learn to stop perpetuating these colonial injustices and make a difference.

That first difference came in my first community-service learning Peace Studies class at Selkirk College. My professor Myler Wilkinson was the first professor I had who told us the community would be our classroom. He said to go out into the community, listen, and make reconciliation happen; create a transformation large or small and watch it ripple outwards.

So I reached out to members of the Sinixt community, listened to their stories, and collaborated with them on a skateboard, an experiential educational piece that could bring Indigenous and non-Indigenous youth together in understanding of the deep history of this landscape.
The ability for post-secondary education to integrate reconciliation and community action with learning goals not only allows students to develop as community leaders—active catalysts for creating tangible difference in the world—but it also helps us discover real-world application for our learning and build networks for our world’s healthier future.

Throughout my degree, I continued to seek out these experiences and, incidentally, I find myself presently participating in a hands-on, community-engaged learning field school project in Lamas, Peru. Given this plenary’s theme of including voices I would like to conclude by presenting some voices from my current field school cohort:

“I found here [in this field school in Peru], I’m less concerned about grades and less concerned about my personal success and more concerned about how I’m impacting the community. So, it’s less of just a teacher-student relationship and more of a student-into-the-community relationship.” —Elise Pullar, fourth-year student, Biology & Environmental Studies

“It has been the coolest thing to actually participate in making biochar. It’s an Indigenous method of improving soil fertility, which also has the potential to sequester carbon and combat global warming—that makes me pretty excited. I find I learn through experience and it’s a completely different thing to learn about, for example, biochar from a book, and then there’s coming here and actually shoveling coconut husks into the oven ourselves and building a fire underneath it, and then watching it come out, seeing the entire process start to finish. It’s pretty transformative, I’d say empowering. It feels doable, because we’ve done it.”
—Caleigh Aalders, Second-year Student, English & Environmental Studies

“I’m constantly reading about how the environment and how society can have this relationship, but it’s always been me drawing those connections and
seeing how my disciplines can try and interact. Being on a field school, you don’t have to struggle to make those connections. Those connections are what you’re living.” —Megan Dewar, Fourth-year Student, Sociology & Environmental Studies

“Having that hands-on and integrated experience with the land, it just feels so reconnecting and rejuvenating in a way. And it feels really healthy. It feels really beneficial for my own health and the health of the land to perpetuate the regenerative cycle of the world.” —Logan Richards, First-year Student, Visual Arts & Environmental Studies

How can we ensure the voice of marginalized people are heard and honoured in higher education? (Cara, Chloé, Amy)

Amy: Three years ago I blew my knee out on stage dancing hip hop. I remember how it felt to put my leg down in a step I had done a thousand times before and to feel it buckle underneath me like a cardboard accordion. The feeling still makes me shiver with disgust. As I hopped off stage, I knew without a doubt that things were about to change. As it turns out, I needed to have ACL reconstructive surgery, and the timing was such that I would be in the early stages of recovery when I would normally start choreography for dance festival.

The dance world has been very open in recent years to embracing difference. There are studios that have classes dedicated to older dancers and dancers of all body types. But the onus still falls on people to “fit in,” to fit their bodies to a particular type of movement that already exists. This act of accommodation requires that people change who they are. But I want you to think for a moment about how stagnant and limiting accommodation actually is.

From an outsider’s perspective, I probably should have taken the year off to sit in the audience to watch my fellow dancers, and join them for next year’s festival. But that didn’t sit well with me or, as it turns out, my dance teacher. After conversation with myself and two other dancers—one with a shoulder impingement and one with deep anxiety—we showed up at the studio a week post-knee surgery ready to create. Over the course of several months my teacher watched us move together. Our collective limitations forced her to be creative in a way that was completely new. By renegotiating her typical approach to choreography, and allowing herself to be guided by our limitations and movement irregularities, she created something entirely unique, something the world of dance had never seen before. It was made on us. Most importantly, it would not have been possible without our injuries and perceived limitations.

This is the change in perspective that we need when we talk about accessibility in higher education. Though important, it is not enough to ensure that the doors to post-secondary institutions are open to traditionally marginalized populations. It is not enough just to break down the barriers to our classrooms and places of learning. The real paradigm shift occurs when we recognize the true and significant value these perspectives bring to our teaching and learning, the power that lies in difference, and the evolution that will occur when we actively seek out and embrace being broken.

Chloé: I am a national student fellow. I have a degree in English Literature. I graduated with distinction. What if I told you now that I have an intellectual disability? Would it surprise you? SILENCE FOR 5 BEATS. I’ve spent the last several years working with kids with developmental or intellectual disability (I/DD). Every moment I’ve spent with them, I’ve seen their defiance. With an ease I admire, they defy expectations, limitations, and definitions of failure or success.
How can we benefit from the presence of these students in our institutions? Many skeptics believe it is simply too difficult to train professors to manage such differences in their classroom, on top of the tasks they already have to juggle. I argue that inviting students with I/DD into our classrooms represents another type of diversity: neurodiversity. For them, it gives them access to a future that has previously been denied to them. Many of the students I work with have a learned helplessness mentality, repeating such things that have been said to them: “What’s the point? I’m not going to be anybody.”

For many students with I/DD or those on the spectrum, “learning” looks different. Many of the hoops that neurotypical students gladly jump through, even if they are arbitrary, the students with I/DD will not. The duration of learning and understanding a topic is not restricted to a semester, or even a year. These are the students that remind us of lifelong learning. Learning for learning’s sake, and an education that is meaningful beyond theory.

At the end of our plenary at STLHE 2018, a professor stood up and asked the question that we all consider: I recognize these issues, but what can I do about them? What are small, daily steps I can take to contribute to the change?

A disclaimer is needed before I give any answer to this question. I am no expert in educational administration, leadership, or special needs education. The most wonderful thing about working in an autism school is the diversity of students, and understanding why they call it “the spectrum.” No school is alike, no student within those schools is alike. My response to this question is perhaps based on a naïve perspective of the academic world. But I like to think of myself as an optimist.

Universities should edit their admissions standards (especially for those of undergraduate studies) to consider different ways of knowing and learning. Student voice should be prioritized in application procedures, not grades or exam marks. Evaluation criteria should also be changed to be more inclusive of different learning styles and ways of knowing. Moving towards a pass/fail system, with a more narrative description of the students’ strengths and weaknesses, means a more meaningful recognition of the efforts of the student. It also makes it more likely for the professors to track progress and growth in individual students. In order for this method of evaluation to be possible, class sizes need to be smaller. Education should not be a relationship between 400 students and one professor. It should be a nurturing mentorship.

Addressing these things will make higher education more accessible. It will also make the value of the education more meaningful, critical, and real, not only for those with I/DD, but for all. For the professors, it will make their jobs less impersonal and overwhelming, and more rewarding.

For a lot of people, it is not easy to associate intellectual disability with academic success. What about you? Do you see them in your institutions? Do you make their voices heard and their presence felt?

Cara: “I am no longer accepting the things I cannot change; I am changing the things I cannot accept.” – Angela Davis

I am a biracial woman of color. I have a mental illness. I am a high school drop-out. I am a survivor. My trajectory to graduate school was unconventional to say the least, rapt with barriers both personal and systemic. I have seen first-hand the challenges that marginalized people face in being accepted to and succeeding in the educational system. As a child, I slipped through its cracks. As a teenager I often heard: “you’re a smart kid but you’ve got a bad attitude.” When I was 19, I received my mature high school diploma and entered the post-secondary world where there was the constant battle of balancing supporting myself financially, caring for my mental health and achieving my academic goals.
Then I began working in child welfare, sexual violence and community mental health. All I knew was that I wanted to help people, I had no idea that these experiences would completely change my life and who I was, and how I saw both these things. There were times when experiences like these impacted my own academic performance and mental health. I often found myself feeling angered, discouraged and hopeless. This compounded with my own struggles, illuminating areas of my life I had denied for years and forcing me to confront them. Every so often I came across a client who I saw myself and my story in, and what would inevitably follow was the deep throb of survivor’s guilt. I would think: I could have been you. I was you. I survived, but why? Not only did I survive but I am thriving. I am strong. I am resilient. Why? Why me?

While I do give some small credit to my own perseverance for making it this far, this question was answered through working with survivors of sexual violence and those in the child welfare system. It was here where the areas in which I do have privilege were illuminated. I am half-white and have light-skinned privilege. My family does not have a history of colonization in Canada. I was never in the child welfare system or incarcerated. I am able-bodied. I am university educated. I am neurotypical. Even my opportunity to be present with survivors through their journey was a privilege. I learned that these privileges and many others contributed to my success and well-being in ways that are completely inaccessible to those with less. And that my privilege must be used to lift up the voices of others. To quote Spiderman’s uncle, “With great power comes great responsibility.”

However, my voice is often louder than others’ and so at times must be quieted. It is important to remember that while our voices as educators, students, and leaders are valuable and can be used to support marginalized students, we are not the experts. Our own voices must be quieted at times as the experiential voice is invaluable and must be honoured. They know better than anyone the challenges they face and what they need to remedy them. Because I have my own experiential voice I can speak to the needs of my communities as I see them, but I cannot speak for everyone or for the communities of others, and nor should I. I can only tell my own truth and be grateful that I am in a position where I have the freedom and opportunity to do so.

Grounded in my own experiences and the stories my clients shared with me, I propose the following solutions with the aim of reconciling the gap between marginalized and privileged students while also addressing the larger systemic issues of inaccessibility and institutionalized discrimination. (1) The admissions criteria should be revised to acknowledge and honor alternative ways of knowing and learning, including those based in community, culture and experience. (2) Include a section in the application where marginalized applicants (and only marginalized applicants) may discuss the barriers they’ve faced, how this motivates them and has made them stronger. (3) And lastly, a mandatory undergraduate class on diversity and inclusivity with an experientially-based curriculum taught by graduate students who identify as marginalized.

Cara/Amy/Chloé: In ecology the edges are where the most diversity occurs. Walking along the edge where a forest meets a valley you will see difference flourishing. Species on the edge of extinction offer the most hope for genetic diversity. The same is true for the world of teaching and learning. There is so much promise and strength that lies in difference and diversity. So, the real question is: how do we bring the edges to the center?

Final Thoughts

Our journey together has been insightful and transformative, and has highlighted the rich opportunities that exist within the education system and the many voices that have yet to be heard. We
compare education to healthy ecosystems and suggest that diversity is essential to build a powerful, resilient and inclusive academic system. *This is the essence of our collective story*—the unearthing of our many communities and their invaluable contribution to our individual and collective education.

We know that breaking down the barriers between academia and community is possible. But currently, our academic degrees seem to be more like *the slow stretching of a slingshot* that sends us hurling into a much separate world once we graduate. So we advocate that the edge between these two worlds—university and community—should be the rich space where learning takes place. Success in the classroom should not be separate from success in the community.

We ask, what can each of us do, as students, as teachers, as administrators, and as an institution as a whole, to create an education system that sends us out to make a better world *during* our studies without having to put our academic standing on the line? What can we do to ensure that no groups are marginalized and that “diversity, health and wellbeing” is central to our education system and thus the world at large?

Here are just a few ideas:

1. Support for wellness in the Academy: encourage students, colleagues, and faculty to turn off on the weekends, practice self-care, to create balance and sustainability.

2. Develop scholarships and entrance awards for marginalized groups who articulate their unique story. Ensure that accessibility is one of the main goals in recruitment efforts. This means actively changing our communication approach and recruiting other ways of knowing to influence and inform the process.

3. Encourage the sharing and practicing of knowledge beyond the classroom. Provide opportunities for community-based research and initiatives. Provide support for participation or leadership in community/national/international working groups, and invite the public into our academic institutions for thesis defenses, research discussions, or for information and sharing about some of the leading issues of our time, e.g., climate change, clean water, human rights, reconciliation, the loss of wildlife and biodiversity.

4. Encourage and support experiential learning, recognizing the value of local and Indigenous knowledge systems and hands-on-experience.

Today, perhaps more than ever before, the future of our world requires deep understanding and knowledge. And, we know that education is powerful, and inclusive education is yet more powerful. So, in the words of Nobel Peace Prize laureate Malala Yousafzai, “We (I) raise up our voice—not so we (I) can shout but so that those without a voice can be heard...we cannot succeed when half of us are held back.”

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Section I
A Pedagogic Strategy for Instructors of Post-Secondary Sector Students Returning to Learn from Concussion

Gail Frost, Maureen Connolly
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Concussion is a functional brain injury that can produce physical, cognitive, emotional and sleep-related symptoms. Return to learn protocols designed to help students recovering from concussion recommend a gradual, symptom-governed, increase in cognitive activity before a return to full-time school attendance and participation. Return to learn in a post-secondary setting often means that instructors are tasked with accommodating for these students, some of whom are back in the classroom even though they are still experiencing symptoms. This paper presents a progressive, ramping approach to increasing cognitive load by using literal, interpretive and applied adaptations to already existing course requirements, with the goal of minimizing the risk of provoking or worsening post-concussion symptoms.

Concussion is a functional brain injury caused by an impact force that can produce physical, cognitive, emotional and sleep-related symptoms. While many concussions resolve within four weeks if managed correctly, some individuals are left with lingering symptoms that may have measurable effects on academic performance, including decreased learning and memory, decreased attention, and slowed processing speed and reaction time (Henry, Elbin, Collins, Marchetti, & Kontos, 2016; Keightley et al., 2014; Sady, Vaughn, & Gioia, 2011). We are seeing more students in our classes who have been diagnosed with this injury, thanks in part to better concussion education programs and recognition tools. These students are not just athletes, as falls and motor vehicle accidents also account for many concussions (CDC, 2019). Some are not ready to take up their pre-injury academic load but are afraid of falling behind if they do not return to class as soon as possible, with or without a doctor’s clearance. A graduated return-to-learn strategy has been devised to promote a successful
return to the classroom for elementary and high school students (McCrory et al., 2017). However, it is difficult to implement in a post-secondary setting, as it requires extensive parental and school involvement and coordination. While some help may be available to post-secondary students through campus wellness centres, more often it is the individual course instructor who is given the responsibility of helping the student with concussion symptoms that may resolve in a relatively brief time period. The expectation is that they will make accommodations for the student by adjusting course content and assessments to account for the symptoms that make academic tasks difficult. In Ontario, accommodations for learning are legally mandated unless they present ‘undue hardship’ (Ontario Human Rights Commission, 2019). At our university, information given to instructors of students who have sustained a concussion encourages strategies like providing the student with class notes, allowing frequent breaks, extending deadlines for completion of assignments and missed tests, and creating alternate assignments.

This can be a frustrating process for both instructor and student, partly due to the nature of post-concussion symptoms, which can appear immediately after the injury-causing impact or several hours later and can last for days, weeks, or in some cases, even longer. Because concussion is an upset of function and not a result of structural damage to the brain, it is not detectable with commonly used clinical imaging techniques such as computed tomography (CT) scan and magnetic resonance imaging (MRI). The appearance and disappearance of symptoms is important in both diagnosis of concussion and monitoring of recovery. These symptoms include sensitivity to light and noise, dizziness and nausea, headache, fatigue, blurred vision, difficulty concentrating and remembering, confusion, feeling slowed down or ‘in a fog’, sleep difficulties and emotional changes (“An educator’s guide to concussions in the classroom”, 2018). The specific symptoms which arise can vary widely between individuals. They are thought to be the result of a cascade of neurochemical changes in the brain, triggered by the impact force, which result in impaired connectivity, changes in neurotransmission, reduced cerebral blood flow, altered glucose metabolism and what has been described in simpler terms as an “energy crisis” (Barkhoudarian, Hovda, & Giza, 2011). The additional neurometabolic cost of physical or cognitive activity undertaken while the brain is trying to re-establish normal functioning is a source of stress that can make symptoms worse (Sady et al., 2011; Valovich McLeod & Gioia, 2010). In addition, pre-existing conditions such as anxiety, depression or a learning disability have been shown to prolong the recovery period after concussion (Hutchinson, Comper, Csenge, & Richards, 2014).

Current best practices suggest that, after a brief period of rest (24-48 hours), individuals can become gradually more cognitively and physically active while staying below the threshold levels at which symptoms become worse (McCrory et al., 2017). A simple plan for implementing this with cognitive activity is: if an increase in cognitive demand produces no change in symptoms then the student may continue with the work. If symptoms increase or worsen, then discontinue the activity and rest for 20 minutes. If symptoms improve with 20 minutes rest, the activity can be re-started at or below the previous level. If the symptoms do not improve with 20 minutes of rest, then discontinue the activity and start again when symptoms have decreased, such as the next day (“An educator’s guide to concussions in the classroom”, 2018). Many students tend to underestimate the severity of symptoms and how easily they can be exacerbated by cognitive or physical activity, especially if it is their first concussion. In this situation, applying more effort to a task is not only unhelpful, it may be detrimental. However, concern about falling behind in classes and staying on schedule to graduate can push students to try too hard in the initial stages of recovery.

The process of accommodation can include strategies to deal with the challenges created by physical teaching spaces, online teaching spaces, and
Students Returning to Learn from Concussion

course organization. Consider addressing as many of these as is practical before looking at ways to adjust the student’s assignments and projects. By looking at, and optimizing, things like classroom lighting and noise levels, where the student sits and when they can take breaks, how your material is presented and made available in the classroom and online, and what peer support can be enlisted, you will have decreased some of the issues that create cognitive stress before the student begins the course work you are expecting them to attempt and complete (Frost & Connolly, 2018).

The course work that awaits the student will likely involve a variety of levels of pace and sophistication relating to content, process, conceptual work, group work, online work, reading, and writing. The student will want to get back into the swing of the course and pick up where they left off. The instructor wants this as well. Yet, this cannot happen because the student’s brain, mind, nervous system, and cognitive processing cannot simply return and pick up where they left off. The instructor, along with their student, must progress back into the many complex and intertwined elements of the course. This progression must be just that: progressive. It must begin with simpler cognitive tasks: knowledge-based, literal-level tasks that do not require comprehension, application, analysis, synthesis, or evaluation – the type of tasks using verbs like identify, locate, label, select, list, name, record and repeat (“Bloom’s taxonomy verb wheel”, 2018). This type of cognitive task allows the student to re-engage with the subject matter and re-connect with the course assignments in a way that is commensurate with their level of cognitive functioning and focus. Then, the student could move on to more complex cognitive work and more complex tasks, tasks that require comprehension, interpretation and application.

To develop a system of progression that is grounded in curricular development and alignment, we turned to the work of Paulo Freire, a literacy educator and theorist who proposed linkages between peoples’ life conditions and appropriate forms of learning activities (Freire, 1972). While Freire’s primary motivation was to interrupt the structures of power that kept poor people from becoming literate and using all the social and cultural benefits that follow from critical literacy, his ideas about relevant and progressively appropriate learning tasks have much cogency for our own project.

Freire’s model of an archeology of consciousness (Finlay & Faith, 1987) combined with Zimmet’s (1987) propositions regarding learning levels are frequently applied in the service of analysis and critique of curriculum and schooling at all levels. In this instance, we apply them for their fundamentally pedagogic benefits to assist instructors in post-secondary contexts who are engaging in adapting their course elements for students in their classes who are returning to learn after concussion. Freire proposes naïve, superstitious and critical as forms of consciousness that indicate degrees and kinds of agency and autonomy related to subject matter and the expression of its comprehension. Zimmet operationalizes these forms of consciousness into literal, interpretive and applied engagements with reading and learning. It is our intention to support students returning from concussion as they re-engage with course material at a meta-cognitive level. However, this cannot be achieved in an instantaneous eidetic re-capturing of their pre-concussion relationship with the subject matter in the course. We propose a progressive sequence of literal, interpretive, and applied adaptations to already existing course requirements to create the gradual ramping necessary to avoid exacerbating the neurometabolic cascade that both underlies and accompanies concussion and provoking or worsening post-concussion symptoms. We are especially attentive to the online environment as well as the theoretical, technical and practical expectations of instructors in post-secondary contexts.

As this paper unfolds, we will lead the reader through a series of examples of literal, interpretive, and applied engagements in a progressive ramping...
approach and we will base these examples in a hypothetical course assignment relating to obesity.

Let us imagine that a student is cleared and ready for a return to learn. This does not mean that the student can return to the same intensity of pace, time and attention she was engaging in before her concussion simply because she has been given medical clearance. Let us extend our imagining exercise and imagine that this student is in a class that has an assignment that requires her to work in a group and design a physical training program for a person diagnosed as obese. She and her group mates were at the beginning stages of this assignment when she was diagnosed with a concussion. Several weeks have passed and she has been cleared to return to class. What might the instructor do to ease this student back into a manageable pace and intensity of work? Some strategies could be applied to the learning environments, both actual and virtual. These include:

1. Avoid an online environment when possible, by providing other sources of information about, and for, the course work.
2. Minimize the extraneous stimuli in the room or space where the student does the learning tasks and in the instructions associated with the tasks.
3. Allow for self-paced timing on the tasks.
4. Use tactile and kinesthetic pathways of processing as well as visual and auditory, to minimize stress on the most affected system (often the visual system).
5. Allow for self-paced breaks from stimuli and processing.

We propose that instructors seriously consider facilitating re-engagement with learning using a progression of literal, to interpretive, to applied tasks related to the purpose of the assignment. In this model, literal tasks are unmediated, and involve mostly concrete engagement with the subject matter, e.g. “Find the definition of obesity on page 6.” Interpretive tasks require the use of a theory, model or principle to guide reasoning, e.g. “Compare the mental and physical health risks of obesity.” Applied tasks call for the transfer of learning from one context to another, e.g. “Explain, and give examples of, fat shaming.” Below you will see a series of suggested learning tasks associated with the hypothetical assignment that illustrate how to work with literal, interpretive and applied construction and phrasing.

Sample Assignment

Assignment: Programming for a Client Managing Obesity
Challenge: student returning to class after a medical absence necessitated by concussion

Literal Learning Tasks

1. Re-read the description of the assignment, or have a classmate read it to you and then you list the different components that must be done to complete the assignment.
2. Do a conversation check in with the other members of your group about obesity and write down one point from each person that you think is important.
3. Use 10 post it notes and write down five risks and five benefits of a training program for a person who is managing obesity; put the post it notes on a piece of flip chart paper so you can continue to add other points as you think of them.
4. Find five images of people who would meet the criteria of obesity doing physical activity.
5. Go to the place where you usually work out. Walk around the space three times and count the number of people who would meet the criteria of obesity.

The verbs that construct the tasks in the above activities allow the student to engage in literal-level, knowledge-based thinking and writing. As discussed earlier in the paper, they are at the
most progressively simple level, yet they still allow the student to participate with her peers and re-engage with the course assignment and material.

Interpretive Learning Tasks

1. List the criteria for obesity and then rank the criteria in terms of a) health and safety, and b) dignity and shame.
2. Choose three pieces of equipment for training a person managing obesity and describe how you could use the equipment in three different ways (or three different activities) that would be appropriate for a person managing obesity who is at the beginning stages of a training program (This could also be done for a person in the middle and near the end of a training cycle).
3. With your group, take turns in a discussion circle and design a progression for a cardio activity; use post-it notes so you can move the elements around to make the progression go from simple to complex.
4. Have a discussion with your group about the concept of “fat shaming” and develop some strategies for recognizing it and addressing it.

At this level, you will note that the tasks have become more process-oriented and involve combining a literal task with a more comprehension-based, interpretive engagement with the material and with group members. This is in contrast with the concrete, product-oriented responses required in a literal task (Kolb, 1984). For this interpretive type of task, instructors would use verbs such as explain, confirm, infer, relate, paraphrase, describe, discuss. These activities are at a more complex level of thinking and problem solving. The student can engage in a deeper kind of thinking and can contribute more to the group’s assignment.

Applied Learning Tasks

1. Describe five training activities that would be contraindicated for a person managing obesity and explain why they would be contraindicated.
2. Describe how you would adapt the activities you described above so that they no longer pose an injury or safety risk.
3. Select two flexibility activities that would stretch what you consider to be the three most important muscle groups; write a script for how you would present these to your client.
4. Do a survey of your training space and rate the equipment and layout in terms of its adaptability, versatility and safety for persons managing obesity.

In these examples, you will note again the linking of a previous, interpretive-type task with a follow up application task, one that requires more in-depth problem solving, more combinatory writing and a consideration of more factors associated with the assignment and the group’s functioning. Here, instructors would use verbs such as modify, build, construct, produce, solve, report, diagram, forecast. Instructors will hopefully see a progressive improvement in the student’s ability to stay focused longer, and to work at a level that approximates many of the demands of the course assignment.

Our work on concussion and its effects on learning and in various learning contexts has compelled us to explore somewhat unconventional problem-solving options for our pedagogy and course design. We have used principles of universal instructional design (Tobin, 2014), research on learning in higher education (Entwistle, Tait, & McCune, 2000), and the work of liberatory pedagogy theorists (Finlay & Faith, 1987; Zimmett, 1987) to inform how we adapt our alignment elements (content, assessment, pedagogy), our learning environments, our assignments, and our task phrasing in the service of progressive return to learn for students recovering
from concussion. One significant insight, over and above the veracity of thoughtfully planned and implemented progressions in learning, is that all learners benefit from a progressive approach to task phrasing and a ramping into a course from a simple to a more complex approach to difficulty, pace, and complexity. This means that the adaptations made for students needing them can be of benefit for any student. The dignity and safety of students requiring adaptations and accommodations as well as the overall learning of all the students in the class can be protected and honored. Further, the use of progressive tasks and careful task phrasing in instruction can be helpful for both novice and experienced teachers in post-secondary contexts as they continue to encounter increasingly diverse learners and increasingly complex scenarios in higher education.

Finally, it may be the case that a student’s symptoms do not improve within the 12-15 weeks of the semester, and that, regardless of the adaptations made in progression and ramping, their learning cannot be reset to pre-concussion levels at a pace that allows them to complete the course successfully. In this case, an instructor can and should work with the student and school administration to support their withdrawal from the course with dignity and safety. For example, it may be possible to provide her with a back-dated (if necessary) withdrawal to avoid a financial penalty.

We have provided examples of strategies that can assist instructors with supporting students returning to learn after concussion and we have shown how to construct and phrase learning tasks from a literal to an applied level of engagement (and difficulty). While we have chosen subject matter that is typical of our own discipline, we hope that the examples provide a template for others who are concerned and committed to progressive and safe practices in higher education for students who are returning to learn after concussion.

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Relation of Personality to Grades and Grading in Undergraduate Peer Review

Jenessa Louise Shaw, Kenneth Cramer

Peer reviews offer a unique assessment of post-secondary students’ writing, wherein students grade fellow students’ (or peers’) essay submissions according to a provided rubric. Previous research found that students’ personality dimensions were related to the grades that students both gave and received through peer assessment. The present study examined the association between personality factors on grader leniency and grades received during a peer review assignment in an introductory psychology course. Participants completed an online survey to assess academic entitlement, learning/grade orientation, narcissism, and the 5-factor personality traits; these were later joined to peer review grades received and given. Results showed that rater leniency was negatively related to learning orientation, conscientiousness, and grade orientation. Moreover, the strongest predictors of grades received included academic entitlement, conscientiousness, and narcissism. Implications of these findings, plus directions for future research, are discussed.

Keywords: peer review, rater leniency, personality, academic achievement

L’évaluation par les pairs constitue un processus exceptionnel d’évaluation de l’écriture d’étudiants de niveau postsecondaire. Des étudiants notent les rédactions de leurs camarades de classe (leurs « pairs ») en utilisant une grille d’évaluation qui leur est fournie. Des recherches ont montré que les aspects de la personnalité des étudiants ont une incidence sur les notes que ceux-ci donnent ou reçoivent. La présente étude examine le lien entre, d’une part, les facteurs liés à la personnalité et, d’autre part, la clémence des évaluateurs et les notes reçues au cours d’une évaluation par les pairs dans un cours d’introduction à la psychologie. Les participants ont rempli un sondage en ligne pour mesurer leurs attentes en matière de notes, leur intérêt pour l’apprentissage ou pour les notes, leur narcissisme et les cinq traits centraux de la personnalité. Les réponses au sondage ont ensuite été combinées aux évaluations par les pairs que les participants ont rendues et reçues. Les résultats montrent que la clémence de l’évaluateur est liée de façon négative à l’intérêt en matière d’apprentissage, au caractère conscientieux et à l’intérêt pour les notes. Qui plus est, les principaux indicateurs des notes reçues comprennent l’attente de recevoir de bonnes notes, le caractère conscientieux et le narcissisme. L’article examine les conséquences de ces résultats et indique la direction à prendre pour des recherches à venir.

Mots clés: évaluation par les pairs, clémence de l’évaluateur, personnalité, rendement universitaire
Peer review (Joordens, Paré, & Collimore, 2014) offers a unique assessment of post-secondary students’ writing, wherein students grade their peers’ essay submissions according to a provided rubric. This type of assessment is growing in popularity due to the many benefits afforded to both instructors and students. Bloxham and West (2004) found that students believe that peer feedback is easier to understand and provides a better learning opportunity than expert (viz. graduate student or professor) feedback. This assessment also provides students with the opportunity to examine other students’ work so as to gain a deeper understanding of concepts through others’ perspectives (Boase-Jelinek, Parker, & Herrington 2015; Sims, 1989). Having students thoroughly review their peers’ submissions aids in the development of both critical thinking skills (Joordens et al., 2014) and deeper learning (Bostock, 2006). Additionally, the experience of grading peers’ assignments may further transmit the importance of attention to assessment criteria (Bloxham & West, 2004) and thus foster critical assessment skills that transfer to other areas of life and learning (Boase-Jelinek et al., 2015).

In addition to the many benefits to students, peer review allows written assignments in larger classrooms and reduces the burden on graders (both graduate students and instructors). Li et al. (2015) found the correlation between student and expert grades was moderately high ($r = 0.63$); Paré and Joordens (2008) similarly found peer-assessment rendered reasonably comparable grades to those derived by experts, though peers were more lenient. However, the trend in student marking has proven inconsistent across studies, wherein peers sometimes offered grades higher and other times lower when compared to experts (Bostock, 2006). Decades earlier, Guilford (1954) first hypothesized that an individual’s tendency to over- or under-rate others’ work would be relatively stable across time. Kane et al. (1955) supported this by finding that social workers’ rating leniency during performance reviews was relatively consistent across time, format, and the coworker in question.

Personality Relates to Both Grading and Grade Leniency

Although many factors contribute to an individual’s grading leniency, individual differences can explain some of this variance. This relation requires further investigation, though some studies have found significant relations between grade leniency and the big five personality traits (Bernardin, Tyler, & Villonova, 2009; Birjandi & Syyari, 2016). In contrast, the role of personality on grades is an area more thoroughly researched. Numerous studies and meta-analyses have investigated the relation between the big five personality traits and academic achievement, finding significant links among most (Poropat, 2009; Richardson, Abraham, & Bond, 2012).

Conscientiousness, characterized by efficiency, self-discipline, reliability, achievement orientation, and diligence (McCrae & John, 1992) is the strongest predictor of academic achievement among the big five personality factors (Poropat, 2009; Richardson et al., 2012). Conscientious students tend to have higher academic self-efficacy and employ a deep learning approach, attempting to fully understand the course material (Zhang & Ziegler, 2016). The conscientious show better attendance (Farsides & Woodfield, 2003), time management skills, effort regulation, and even more sophisticated metacognition (Bidjerano & Dai, 2007). Moreover, conscientiousness is negatively related to self-handicapping, or behaviors that reduce performance to provide an external cause to attribute failure (Ross, Canada, & Rausch, 2002). Similarly, conscientiousness is also significantly related to grade leniency, where graders higher in conscientiousness tend to be less lenient and give lower grades (Bernardin et al., 2009; Birjandi & Syyari, 2016). This may be because of the relationship between conscientiousness and academic achievement. The deeper understanding of concepts associated with high scores on this trait (Zhang & Ziegler, 2016) may lead to an ability to judge the accuracy of assignment content more easily. Moreover, individuals who score higher in this trait...
may more diligently follow rubrics and identify more mistakes in their assigned papers.

In addition, two independent studies identified openness as the second largest correlation to academic achievement. Students high in openness are curious, imaginative, insightful, and tend to have wide intellectual interests (McCrae & John, 1992). This relation is mediated by higher academic self-efficacy and the tendency to employ a deep learning strategy (Zhang & Ziegler, 2016). Researchers have yet to identify a significant association between grade leniency and openness.

Agreeableness—characterized by trust, altruism, kindness, and compliance (McCrae & John, 1992)—is only somewhat related to academic achievement (Poropat, 2009; Richardson et al., 2012). However, this relation increases with each academic year (Farsides & Woodfield, 2003). Agreeableness has also been linked to cooperation with instructors (Vermetten, Lodewijks, & Vermunt, 2001) and higher attendance (Farsides & Woodfield, 2003). As result of their desire to please others, agreeable graders tend to be more lenient (giving higher and less valid grades) to avoid upsetting their peers (Bernadin et al., 2009; Birjandi & Syyari, 2016).

In contrast, extraversion—characterized by activeness, assertiveness, chattiness, outgoingness, plus the tendency to seek excitement (McCrae & John, 1992)—is negatively related to academic achievement (Poropat, 2009; Richardson et al., 2012). Extraverted students are more likely to externalize academic responsibility—a component of academic entitlement related to poor grades (Bonaccio, Reeve, & Lyerly, 2016). Although the relation between extraversion and grade leniency has not been investigated in an academic setting, research on rater leniency in the workplace can offer some insight. Cheng, Hui, and Cascio (2017) found extraversion to be related to higher rating leniency and more generous ratings in realtors’ performance reviews conducted by coworkers; it may be that those higher in extraversion are more aware of the social repercussions of poor ratings.

Lastly, no significant relation has been found between neuroticism and either academic achievement or grade leniency (Poropat, 2009; Richardson et al., 2012). Perhaps because students high in neuroticism are anxious, impulsive, tense, irrational thinkers, and have low self-esteem (McCrae & John, 1992), neuroticism is significantly related to self-handicapping (Ross et al., 2002), surface learning (Zhang, 2003), and low academic self-concept (Zhang & Ziegler, 2016).

### Learning Orientation, Grade Orientation, Narcissism, and Academic Entitlement

Aside from the five-factor model of personality, students’ orientation and attitudes towards learning is tied to their academic achievement. Learning orientation is the approach to education as an opportunity for self-improvement and enlightenment, whereas grade orientation is the attitude that education is for obtaining high grades and positive evaluations (Eison, Pollio, & Milton, 1983). Learning orientation is related to higher grades (Haris & Haris, 1987), lower test anxiety, and higher satisfaction with courses (Eison et al., 1983). These students also tend to have higher self-efficacy which is tied to improved performance (Phillips & Gully, 1997). In contrast, grade orientation is related to the belief that ability is less malleable, which leads to lower self-efficacy and performance (Phillips & Gully, 1997). Thus, grade orientation is often accompanied by an overwhelming pressure to succeed which can be debilitating when individuals high in this trait feel their goals are unattainable (Utman, 1997). Finally, grade orientation has been linked to poorer studying habits and higher academic entitlement which further decrease academic achievement (Vallade, Martin, & Weber, 2014).
The relation between learning orientation and grade leniency has yet to be explored; it can be argued that individuals high in learning orientation value education and learning experiences, which may lead to harsh marking on assignments that were not taken seriously. Moreover, learning orientation has been linked to higher grades and a better understanding of material (Haris & Haris, 1987), which may lead to an ability to better judge the accuracy and merit of assignment content. This may in turn be related to lower grade leniency, as learning oriented individuals may more easily find mistakes.

Academic entitlement—the belief that one deserves academic success regardless of effort (Chowning & Campbell, 2009)—is related to lower grades (Bonaccio et al., 2016), lower course self-efficacy, and more social network use (Boswell, 2012). Furthermore, academic entitlement is related to lower personal control and need for cognition (Chowning & Campbell, 2009), as well as higher extrinsic motivation, achievement anxiety, and academic dishonesty (Greenberger et al., 2008). The relation between academic achievement and grade leniency has not yet been explored. Students higher in this trait may give more generous grades because of their expectation of high grades with little effort, however, this would only occur if this belief extends to other students.

Subclinical narcissism is a personality trait characterized by overconfidence, grandiosity, entitlement, arrogance, poor self-awareness, and self-obsession (MacDonald, 2014). Limited research has considered the relation between narcissism and academic achievement, though narcissism has been found to be related to entitled expectations (Turnipseed & Cohen, 2015) and academic dishonesty (Brunell et al., 2011). Some studies have found a small positive relation between narcissism and academic achievement, perhaps because grades provide an opportunity for self-enhancement (Abe, 2014; Westerman et al., 2016). Furthermore, Wallace and Baumeister (2002) found individuals high in narcissism perform above average when a task is perceived either as challenging or as an opportunity to self-enhance; however, no difference in performance has been observed in other tasks. Therefore, narcissism may only have a positive relation with grades if the student views the assignment as an opportunity for self-enhancement. Although no research has been done directly on narcissism and grade or rater leniency, research by Westerman and colleagues (2016) suggests perceived difficulty of professors may be more dependent on the congruency of student and professor narcissism rather than the professor’s narcissism levels; it follows that there may not be a direct relation between students’ narcissism and their grade leniency.

The Present Study

The present study sought to identify how the big five personality traits (conscientiousness, openness, agreeableness, extraversion, and neuroticism), narcissism, academic entitlement, and both learning and grade orientation were related to grade leniency during an undergraduate peer review. Although research has identified conscientiousness, agreeableness, and extraversion as personality factors related to grade and rater leniency (Birjandi & Syyari, 2016; Cheng, Hui, & Cascio, 2017), various factors are left under-explored—more research is needed in academic settings. Based on research by Bonaccio et al. (2016), Birjandi and Syyari (2016), Haris and Haris (1987), and Poropat (2009), we hypothesized the following:

1. Agreeableness would positively predict grade leniency
2. Both conscientiousness and learning orientation would negatively predict grade leniency; and
3. Academic entitlement, conscientiousness, and learning orientation would be the significant predictors of academic success.
Method

Participants

Two Introduction to Psychology courses in the Fall 2017 semester at the University of Windsor were approached to participate in this study. Of the 300 undergraduates approached, 47 (16%) elected to participate. They self-identified primarily as Caucasian (75%), followed by African/American (11%), Asian (9%), Arabic (2%), Indian (2%), and mixed (2%). The majority of participants identified as female (85%) with a mean age of 21.04 years (SD = 4.45).

Peer Review Process

As part of their introductory class, all students completed a peer review assignment worth 10% of their final grade. The paper involved submission of both a 120-word maximum summary of an assigned article, and a 350-word maximum commentary (including 2 to 3 outside references). Students uploaded their assignments to a website that later anonymized papers and randomly assigned each one to six peers for grading according to a previously provided rubric (stipulating no student could grade their own assignment). Students were given one week to both grade their assigned papers using a 10-point scale (according to the detailed rubric provided; see Appendix A) and give feedback to justify the grades awarded. Their six grades and feedback were visible to students, however graders’ identities remained anonymous.

Once the courses were complete and final grades submitted to the Registrar’s office, students were sent a recruitment email with a brief description of the study and a link to an online survey. Four scales and a demographics questionnaire were administered through the online survey program Qualtrics, taking no more than 20 minutes to complete. As compensation for their time, participants were entered in a draw to receive one of four campus currency cards valued at $25 each. All measures were scored according to their respective standardized procedures and merged with the peer review data for the respective participants.

Measures

In previous research, Grade Leniency was calculated by subtracting either an expert’s grade (Birjandi & Syyairi, 2016; Borman, Hough, & Dunette, 1978) or an average grade as derived from peers (Cheng et al., 2017; Kane et al., 1995). As personality is hypothesized to significantly impact grading behaviour, we utilized this latter approach to prevent any personality bias from a single grader. So as to derive individual leniency scores, for each assignment the mean grade others gave that same assignment was subtracted from the grade the participant gave. For example, if a student gave a paper a score of 8 out of 10 while the remaining five graders awarded that same paper an average of 7, then a +1 leniency scores was derived for that grader on that paper. The average of each participants’ six leniency scores was calculated and then standardized. Negative grade leniency scores represented more stringent (below-average) marking whereas positive grade leniency scores represented more generous (above-average) marking. Furthermore, Average Grade Received was calculated as the mean grade a participant received from their peers on their peer review assignment.

Finally, to further investigate the relation between personality, grades, and grading behaviour, two variance measures were calculated. Variance in Grades Received was calculated as the variance of the six grades each student received from their peers, and Variance in Grades Given was calculated as the variance in the six grades one awarded the assignments they graded.

Personality Measures

Academic Entitlement was assessed using the Academic Entitlement Scale (Greenberger et al., 2008), a 15-item questionnaire that explores students’
observational behaviours (e.g., “I discuss interesting material that I’ve learned in class with my friends or family”) using a 5-point scale ranging from 1 (Never) to 5 (Always). In contrast, the Grade Orientation Subscale consists of 16 questions that assess how important grades are to students; 8 items measure academic attitudes (e.g., “I think grades provide me a good goal to work toward”) and the other 8 measure observable behaviours (e.g., “I will withdraw from an interesting class rather than risk getting a poor grade”) with the same scoring as above. The mean score of all four subscales was calculated with higher scores representing higher levels of that orientation.

The Big Five Personality Traits were assessed through the Ten-item Personality Inventory (TIPI) (Gosling, Rentfrow, & Swann, 2003), a short 10-item measure of conscientiousness, agreeableness, openness, extraversion, and emotional stability using a 7-point Likert scale with responses ranging from 1 (Disagree Strongly) to 7 (Agree Strongly). Each personality trait has two corresponding items and the average of these responses was used with higher scores representing higher levels of this trait. Gosling et al. (2003) found that over a period of 6 weeks, the TIPI had a retest reliability of .71 across the 5 traits. Concurrent validity was established through strong correlations to the Big Five Inventory (Gosling et al., 2003).

Results

To begin, Table 1 shows the means, standard deviations, and minimum and maximum values for all variables. We set our significance level at $\alpha = .05$ for all statistical tests.
Table 1. Means, ranges, and standard deviations of personality measures and grading variables (n=47)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Leniency</td>
<td>0.18</td>
<td>1.58</td>
<td>-2.71</td>
<td>4.80</td>
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<tr>
<td>Average Grade Received</td>
<td>7.72</td>
<td>1.34</td>
<td>2.25</td>
<td>9.67</td>
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<tr>
<td>Academic Entitlement</td>
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<td>0.75</td>
<td>1.13</td>
<td>4.67</td>
</tr>
<tr>
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<td>0.23</td>
<td>0.19</td>
<td>0.00</td>
<td>0.69</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>5.37</td>
<td>1.40</td>
<td>2.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Extraversion</td>
<td>3.54</td>
<td>1.84</td>
<td>1.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>4.83</td>
<td>1.28</td>
<td>2.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Openness</td>
<td>5.19</td>
<td>1.04</td>
<td>2.50</td>
<td>7.00</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>4.03</td>
<td>1.53</td>
<td>1.00</td>
<td>6.50</td>
</tr>
<tr>
<td>Learning Orientation Attitudes</td>
<td>3.52</td>
<td>0.64</td>
<td>1.00</td>
<td>4.75</td>
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<tr>
<td>Learning Orientation Behaviours</td>
<td>2.42</td>
<td>0.73</td>
<td>1.25</td>
<td>4.13</td>
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<tr>
<td>Learning Orientation Score</td>
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<td>0.53</td>
<td>1.94</td>
<td>4.38</td>
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<td>Grade Orientation Attitudes</td>
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<td>0.67</td>
<td>1.00</td>
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<td>Grade Orientation Behaviours</td>
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<td>0.74</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Grade Orientation Score</td>
<td>2.67</td>
<td>0.59</td>
<td>1.50</td>
<td>4.13</td>
</tr>
</tbody>
</table>

Table 2 shows the results of all the correlational analyses. The relation between grade leniency and personality was examined through correlations and stepwise regression analyses; all statistical assumptions were met. Learning orientation attitude scores were significantly related to grade leniency ($r (45) = -0.32, p = .028$), where higher learning orientation attitude students offered less lenient grades. Similarly, grade leniency was marginally related to conscientiousness ($r (45) = -0.27, p = .063$) and grade orientation attitude ($r (45) = -0.25, p = .088$), where students higher in these traits also gave less lenient grades. Our final stepwise regression model explained 20% of the variance ($F (2, 44) = 5.43, p = .008$), and included both learning orientation attitudes ($\beta = -0.353, t (44) = -2.60, p = .013, sr^2 = .12$) and conscientiousness ($\beta = -0.310, t (44) = -2.28, p = .027, sr^2 = .09$).

Moreover, four personality variables correlated significantly with the average grade received on peer review. The grade received was negatively related to academic entitlement ($r (45) = -0.40, p = .005$), narcissism ($r (45) = -0.32, p = .028$), and extraversion ($r (45) = -0.29, p = .048$). The grade received was positively related to conscientiousness ($r (45) = 0.31, p = .035$). In sum, the grade on a paper was higher if the submitter felt less entitled and narcissistic but was more introverted and conscientious.

A stepwise regression analysis was performed with average grade received as criterion, having met all the assumptions after omitting a single outlier (standardized residual = -3.84). The final model explained 39% of the variance ($F (3, 42) = 8.86, p < .001$) and included narcissism ($\beta = -0.410, t (42) = -3.31, p = .002, sr^2 = .16$), academic entitlement ($\beta = -0.462, t (42) = -3.32, p = .002, sr^2 = .16$), and grade orientation ($\beta = 0.313, t (42) = 2.28, p = .028, sr^2 = .08$). Lastly, we examined the relation between personality and the variance in both grades received and given. Variance in grades given was only marginally related to agreeableness ($r (45) = -0.28, p = .059$), wherein more agreeable students tended to be less variable (more consistent) in the grades they gave their peers. Additionally, variance in grades received was related negatively to agreeableness ($r
(45) = -0.36, p = .013), and positively to both openness (r (45) = 0.29, p = .047) and narcissism (r (45) = 0.35, p = .015). In sum, students high in agreeableness and low in both narcissism and openness received more consistent grades.

Table 2. Correlations between all personality and peer review variables.

<table>
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<th>13</th>
<th>14</th>
<th>15</th>
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<tbody>
<tr>
<td>1</td>
<td>Grade Leniency</td>
<td></td>
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<td>2</td>
<td>Grade received</td>
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<tr>
<td>3</td>
<td>Grade received variance</td>
<td>0.159</td>
<td>0.399</td>
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<tr>
<td>4</td>
<td>Academic entitlement</td>
<td>0.195</td>
<td>-0.402</td>
<td>0.230</td>
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<tr>
<td>5</td>
<td>Narcissism</td>
<td>0.047</td>
<td>-0.320</td>
<td>0.352</td>
<td>0.204</td>
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<tr>
<td>6</td>
<td>Conscientiousness</td>
<td>-0.274</td>
<td>0.399</td>
<td>-0.170</td>
<td>-0.255</td>
<td>-0.265</td>
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<tr>
<td>7</td>
<td>Agreeableness</td>
<td>-0.018</td>
<td>0.153</td>
<td>-0.360</td>
<td>-0.016</td>
<td>-0.303</td>
<td>-0.082</td>
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<tr>
<td>8</td>
<td>Extraversion</td>
<td>0.029</td>
<td>-0.291</td>
<td>0.240</td>
<td>0.271</td>
<td>0.611</td>
<td>-0.369</td>
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<tr>
<td>9</td>
<td>Openness</td>
<td>-0.191</td>
<td>-0.214</td>
<td>0.291</td>
<td>0.105</td>
<td>0.340</td>
<td>0.006</td>
<td>0.062</td>
<td>0.403</td>
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<td>10</td>
<td>Neuroticism</td>
<td>-0.060</td>
<td>-0.117</td>
<td>-0.151</td>
<td>-0.009</td>
<td>-0.033</td>
<td>0.257</td>
<td>0.160</td>
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<tr>
<td>11</td>
<td>LO attitude</td>
<td>-0.321</td>
<td>-0.025</td>
<td>0.009</td>
<td>0.081</td>
<td>0.085</td>
<td>-0.102</td>
<td>-0.142</td>
<td>0.206</td>
<td>0.200</td>
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<tr>
<td>12</td>
<td>LO behaviour</td>
<td>-0.041</td>
<td>-0.268</td>
<td>0.028</td>
<td>-0.085</td>
<td>0.251</td>
<td>0.000</td>
<td>0.000</td>
<td>0.169</td>
<td>0.117</td>
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<tr>
<td>13</td>
<td>LO total score</td>
<td>-0.223</td>
<td>-0.230</td>
<td>0.024</td>
<td>-0.010</td>
<td>0.216</td>
<td>-0.061</td>
<td>-0.106</td>
<td>0.243</td>
<td>0.204</td>
<td>0.087</td>
<td>0.726</td>
<td>0.805</td>
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<tr>
<td>14</td>
<td>GO attitude</td>
<td>-0.252</td>
<td>0.024</td>
<td>0.057</td>
<td>0.470</td>
<td>0.007</td>
<td>0.012</td>
<td>0.110</td>
<td>0.097</td>
<td>0.022</td>
<td>0.045</td>
<td>-0.096</td>
<td>-0.239</td>
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<td>15</td>
<td>GO behaviour</td>
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<td>-0.013</td>
<td>0.197</td>
<td>0.321</td>
<td>0.217</td>
<td>-0.267</td>
<td>0.176</td>
<td>0.062</td>
<td>-0.110</td>
<td>-0.203</td>
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<td>16</td>
<td>GO total score</td>
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<td>0.005</td>
<td>0.159</td>
<td>0.473</td>
<td>0.143</td>
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<td>0.174</td>
<td>0.098</td>
<td>0.048</td>
<td>-0.102</td>
<td>-0.133</td>
<td>-0.213</td>
<td>-0.229</td>
<td>0.812</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.01 level (2-tailed)

Discussion

This study investigated the relation between personality, grades, and grading behaviours, and is the first to consider the relation between grade leniency and narcissism, grade orientation, learning orientation, and academic entitlement. Several significant findings were uncovered, many of which are consistent with past research; however, some findings were unexpected and warrant further exploration.

We first hypothesized that agreeableness would be the strongest predictor of grade leniency. Consistent with previous research (Bernadin et al., 2009; Birjandi & Syyari, 2016), it was expected that the desire to please others would result in more lenient grades; however, agreeableness was not related to grade leniency. There was a marginally significant relation between agreeableness and variance in grades given, wherein more agreeable students tended to award more consistent grades. It appears that rather than giving higher grades to please peers, students higher in agreeableness gave grades in a small interval that were not noticeably high or low. This may be to avoid upsetting their professor with grades that are too high or their peers with grades that are too low.

Secondly, we hypothesized that both conscientiousness and learning orientation would be related to lower grade leniency; this was supported. Consistent with past research (Bernadin et al., 2009; Birjandi & Syyari, 2016), conscientiousness was found to be related to less lenient and more accurate grades. This may be because those high in this trait are diligent, and detail orientated (McCrae & John, 1992), which may lead to graders who follow the rubric carefully and notice all the mistakes in
assignments. Moreover, conscientiousness has been linked to higher academic achievement and deeper learning (Zhang & Ziegler, 2016). As a result, individuals higher in this trait may have a deeper understanding of the material they are grading and therefore better able to judge the accuracy of the assignment content.

In contrast, past research has yet to uncover an association between learning orientation attitudes and grade leniency. Like conscientiousness, learning orientation has been linked to a better understanding of material (Haris & Haris, 1987), which may similarly lead to an ability to better judge accuracy and merit of the assignment content. However, learning orientation attitudes specifically involve valuing education and learning opportunities (Eison et al., 1983). This trait may lead students to be more upset by peers who do not take the assignment seriously and as a result mark more harshly.

In addition to learning orientation attitudes and conscientiousness, a trend was found wherein students higher in grade orientation attitudes tended to give less lenient grades. Grade orientated students often want to achieve the highest marks with the lowest efforts (Eison et al., 1983) and tend to be more concerned with their relative standing to their peers (Utman, 1997). They often experience intense pressure to achieve their goals which prove detrimental (Utman, 1997). As a result, students higher in grade orientation attitudes may mark less leniently in order to reduce competition and have more favorable relative standing. Further research is needed to explore these possibilities.

Finally, we hypothesized that the significant predictors of academic achievement would be academic entitlement, conscientiousness, and learning orientation; this was partially supported wherein academic entitlement was related to lower grades on the peer reviewed assignments (Bonaccio et al., 2016). Past research has shown students high in this trait receive lower grades because they expect high grades with minimal effort, have less personal control, and experience a reduced need for cognition (Chowning & Campbell, 2009). Moreover, academic entitlement is related to a lower self-efficacy (Boswell, 2012) and higher achievement anxiety (Greenberger et al., 2008) which create further barriers to academic success.

As hypothesized, conscientiousness was related to higher grades on the peer review. This relation is well documented due to the many benefits of conscientiousness for student success including self-discipline, diligence, and achievement orientation (McCrae & John, 1992). These students also have higher academic self-efficacy (Zhang & Ziegler, 2016), better metacognition, excellent time management skills, and superior effort regulation (McCrae & John, 1992). Indeed, comprehensive meta-analyses often cite conscientiousness as a powerful predictor of academic achievement (Poropat, 2009; Richardson et al., 2012).

Contrary to expectations, learning orientation was not significantly related to grades received, possibly because the relationship between learning orientation and academic achievement is mediated by perceived task difficulty (Utman, 1997). Thus, if students did not perceive the peer review assignment as difficult, then any advantage of learning orientation would not apply. A stepwise regression identified narcissism, academic entitlement, and grade orientation as significant predictors of academic achievement. Narcissism had a moderate negative relationship with grades received, where students higher in narcissism received lower grades on the peer reviewed assignments. This was unexpected since past research identified a positive relation between narcissism and grades received (Abe, 2014; Westerman et al., 2016). However, the anonymity embedded in the peer review reduces the opportunity for self-enhancement, which may have in turn reduced performance because self-enhancement is the main motivator for those high in narcissism (Wallace & Baumeister, 2002). Moreover, narcissism is related to impulsivity and reduced self-regulation which both render it difficult to resist temptation of
distractions long enough to write academic papers (Vazie & Funder, 2006). Moreover, Robins and Beer (2001) found academic engagement levels of narcissistic students declined in an effort to self-protect against inflated grade expectations. Thus, participants high in narcissism may have begun to disengage from school as their first semester in university progressed and they experienced the typical grade drop. More research is needed to explore the conditions in which narcissism is either beneficial or harmful to grades.

Contrary to expectations, grade orientation was a significant positive predictor of grades received. Grade orientation is typically related to poor academic achievement because the pressure to obtain high grades can be debilitating when students fear their academic goals are unattainable (Utman, 1997). However, if the peer review assignment was viewed as a manageable task, then this fear may not have interfered with their performance. Moreover, students high in grade orientation tend to see education as an opportunity for high grades and positive evaluations (Eison et al., 1983). This high motivation for academic success may lead students high in this trait to follow the rubric more diligently and ensure all necessary components of the assignments are present. Future studies should investigate the possible advantages of grade orientation and explore circumstances in which it may be better than learning orientation.

In addition to academic entitlement, conscientiousness, and narcissism, grades received were related to extraversion where higher levels implied lower grades. This relation is consistent with past research (Poropat, 2009; Richardson et al., 2012), as extraversion is related to externalized academic responsibility—a component of academic entitlement related to poor grades (Bonaccio et al., 2016). Extraverted students are also more social (McCrae & John, 1992), which may interfere with finding sufficient time to work on assignments. When we explored the relation between personality and variance in grades received, several variables were significant, including narcissism. We suspect this occurred because the narcissists’ personality may surface in both their writing style and tone of the written assignment, more precisely through overconfidence, self-obsession, grandiosity, arrogance, and entitlement (MacDonald, 2014). If these traits are clear in these students’ assignments, some graders may give lower grades out of dislike for this type of individual. In contrast, more objective graders will mark according to the rubric without allowing their personal feelings to interfere with their grading which may result in higher grades. In previous studies, essays have been accurately classified by big five personality factors based upon writing features such as word choice, punctuation, topic choice, and pronoun usage (Mairesse et al., 2007; Li & Chignell, 2010). Although the detectability of narcissism in writing has not yet been identified, if these traits are evident in the written assignments, this may explain the variance in grades received, however, future research is needed to further explore this relation.

In contrast, agreeableness was found to have a significant negative relation with variance in grades received, where students higher in agreeableness—characterized by trust, altruism, kindness, compliance, and the desire to please others (McCrae & John, 1992)—had little variability in the grades their peers gave them. Students high in agreeableness may choose less controversial topics to avoid upsetting readers and their kindness may be evident in their writing style. Mairesse and colleagues (2007) support this explanation with the finding that individuals higher in agreeableness tend to avoid negations and negative emotions in their writing. If this is the case in the present study, the subjective influence on grading should be minimized leading to less variability in grades received. Future research is needed to explore this possibility.

Lastly, openness was found to have a significant positive relation with variance in grades received where students higher in openness—characterized as curious, imaginative, insightful, with a wide array of
intellectual interests (McCrae & John, 1992)—had more variability in the grades their peers gave them. Moreover, openness is related to more novel idea generation (Madrid & Patterson, 2014) which could lead to more novel arguments in papers and controversial topics. This explanation is supported with Mairesses and colleagues (2007) finding that individuals higher in openness are more likely to discuss religion and metaphysical issues in free-writing. Students may react differently to the more original and controversial arguments, creating a variation in grades related to the graders’ acceptance and appreciation of this novelty.

There were some notable limitations to this study. Firstly, there was only a sixteen percent response rate resulting in an underpowered sample. Secondly, although this study focused on personality’s relation to grades and grading behaviours, there are many factors that may have influenced grading behaviours that were not examined. We did not have access to how long students spent grading, the number of times papers were visited, and the order they graded the papers in. These timing factors may have influenced the grades one received or variability in the grades one gave. Thirdly, factors such as the time of day the papers were graded or the student’s emotional state while grading were not considered. Lastly, prior grading experience was not assessed which may have influenced grade leniency.

To conclude, grade leniency is a factor affecting the accuracy of grades in peer reviews and professional grading alike. This variable is predicted by learning orientation attitudes and conscientiousness. Moreover, the variance in students’ grades is related to their levels of openness, agreeableness, and narcissism. The influence of personality on grading is substantial and peer-reviews have shown this influence can be reduced when many graders’ ratings are combined. Due to a large variance in grades assigned by the instructor to the same assignment (Brookhart et al. 2016), should multiple graders perspectives be combined to improve grading accuracy? This question, along with the influence of personality on grading behaviours in instructors requires further research and possible safeguards should be investigated.

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Relation of Personality to Grades


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Appendix A: Grading Rubric

Abstract

Maximum 120-word summary (2 points) should include an opening and concluding sentence and all the relevant points made by the author – no citations or personal views should be included.

Commentary

Clear statement of the issues being addressed (2.5 points)
Appropriate sources used/integrated (1 point)
Includes opening and concluding paragraphs (.5 point)

In General

Follows proper in-text citation and references (1 point)
Well-written and easy to follow (2 points)
Free of spelling and grammatical errors (1 point)

Total: 10 points

Note: These are not “all or nothing” grading allotments. Rather, they refer to the maximum available for each category. Spelling and grammar errors should be deducted at 0.25 points for each example of the error (i.e., do not deduct repeatedly for the same mistake). If sources such as Wikipedia are used, all points for sources (2) should be deducted.
Student Anxiety and Evaluation

Kerry Hull, Heather Lawford, Suzanne Hood, Vanessa Oliveira, Michele Murray, Maxime Trempe, Jamie Crooks, Murray Jensen

The increased prevalence and severity of academic-related distress is of significant concern on college campuses. Of particular relevance to instructors is the anxiety relating to classroom teaching and evaluation practices. Sources of evaluation anxiety include student uncertainty about the nature of the expected demands as well as their ability to meet these demands. This report presents work from a pilot study investigating correlations between evaluation anxiety and perceived evaluation accuracy for different evaluation techniques across four different disciplines. We also examined the potential mediating role of academic self-efficacy in the relationship between anxiety and expected grade. Our results provide insight into methods to reduce anxiety and increase performance. We try to answer the question: “Should instructors focus their efforts on modifying their evaluation tools or increasing academic self-efficacy?”

Psychological distress is a growing problem on campuses, both in terms of prevalence and of severity (Deasy, Coughlan, Pironom, Jourdan, & Mannix-McNamara, 2014). Academic factors are cited as significant stressors/causes of concern more than non-academic factors such as finances and personal relationships (Beiter et al., 2015; Deasy et al., 2014; Kumaraswamy, 2013). While a certain amount of stress is unavoidable and potentially beneficial, a common response to stress is anxiety (Johnson, 2009). Test anxiety is particularly relevant. It describes a set of responses experienced by students in evaluative situations resulting from concern about the consequences of poor performance/failure. While most commonly studied in the context of traditional exams, this concept can extend to any form of academic evaluation, including essays and oral presentations, and is thus often described as evaluative anxiety. Manifestations of test anxiety can include cognitive responses such as worry and fear of failure, physiologic responses—also known as bodily-affective responses—such as...
elevated heartbeat, and behavioral responses such as procrastination and avoidance of studying (Zeidner, 2007).

Apart from its impact on student well-being, evaluative anxiety also impacts academic performance (Baumeister, 1984; Ramirez & Beilock, 2011). Indeed, student marks may reflect their ability to cope with evaluation anxiety as much as their skills and knowledge (Zeidner, 2007). Anxiety reduces goal-focused attention (Mowbray, 2012) and working memory skills (Beilock, Kulp, Holt, & Carr, 2004), and thus impacts all stages of the learning process: preparation, performance, and reflection (Cassady, 2004). Of particular concern is the impact of anxiety on how students learn: anxiety impairs deep-level processing and is positively correlated with surface-level processing (Rozendaal, Minnaert, & Boekaerts, 2001). Highly anxious students do correspondingly worse on evaluations requiring high cognitive involvement, such as short-answer and essay questions, and take home examinations (Benjamin, McKeachie, Lin, & Holinger, 1981). Students with higher anxiety (e.g., worry, emotionality) focus on avoiding failure and not appearing incompetent, whereas low anxiety is associated with a focus on developing skills and mastering the content (Stan & Oprea, 2015).

The degree of anxiety depends, in part, on the characteristics of the evaluation itself. While we often consider exams as highly stressful situations for students, several studies show that students perceive open-ended assessments such as term papers and oral presentations as equally or even more stressful (Deasy et al., 2014; Pitt, Oprescu, Tapia, & Gray, 2017). This anxiety reflects, at least in part, discrepancies between perceived assignment quality and the mark they receive (Pitt et al., 2017). Thus, student perceptions of the assessment’s accuracy in evaluating skills and knowledge could be implicated in how much anxiety it provokes.

Student personality traits can also account for perceived anxiety around evaluation (Lowe et al., 2008). Individual differences that are malleable and receptive to change (as opposed to highly stable personality traits) provide particularly advantageous aspects for study, as they may be amenable to change through targeted intervention. For instance, locus of control indicates the degree to which one attributes the outcome of an evaluation to external forces, such as the instructor, or to internal forces, such as one’s own actions (Hrbáčková, Hladík, & Vávrová, 2012). An internal locus of control has been linked to greater academic achievement (Rinn, Boazman, Jackson, & Barrio, 2014).

A related target is academic self-efficacy, which indicates students’ subjective beliefs about their ability to cope with academic challenges (Bandura, 1997; McIlroy, Bunting, & Adamson, 2000). Possessing the necessary skills and knowledge to complete the task is not sufficient; students must also believe that they can be successful under the challenging circumstances associated with evaluation (Artino, 2012; Bandura, 1997). As such, academic self-efficacy is both situational and task-specific (Artino, 2012). Improving academic self-efficacy may also directly impact academic performance, since many studies reveal strong correlations between these two parameters (see, for instance, Honicke & Broadbent, 2016; Richardson, Abraham, & Bond, 2012). The meta-analysis of Talsma et al. (Talsma, Schüz, Schwarzer, & Norris, 2018) took the additional step of examining causal relationships between performance and self-efficacy and observed a reciprocal relationship. Their data supported the validity of the statements “I believe therefore I achieve” (p. 136) as well as “I achieve therefore I believe” (p. 137) for adult learners. Targeting academic self-efficacy (as well as performance directly) can thus significantly improve student performance.

Research suggests this relationship may be mediated, in part, by a reduction in anxiety, since high-anxiety, low self-efficacy students demonstrate poorer performance compared to students with similar anxiety levels but higher self-efficacy (Raufelder &
Student Anxiety and Evaluation

Ringeisen, 2016). Strong academic self-efficacy can improve performance by protecting against cognitive and bodily aspects of anxiety resulting from a lack of confidence.

This report presents work from a pilot study investigating correlations between evaluation anxiety, personality measures, and evaluation types in undergraduate students.

Study Purpose

With respect to evaluation, we hypothesized that student anxiety would be less in regard to techniques that they believe accurately reflect their knowledge and abilities. Further, we investigated whether this association was the same across different types of evaluation. Next, we investigated self-efficacy, and hypothesized that anxiety would be reduced in students with greater self-efficacy. We further investigated whether self-efficacy accounted for the association between anxiety and predicted grade. To anchor this project in classroom practice, we kept in mind this question: In order to reduce anxiety and increase student performance, should instructors focus their efforts on modifying their evaluation tools, decreasing anxiety, or increasing self-efficacy?

Methodology

The study population included students at a small, primarily undergraduate university taking classes in four different disciplines:

1. Non-majors in Biology, \(n = 110\)
2. Sports Studies, \(n = 14\)
3. Philosophy, \(n = 18\)
4. Religion, \(n = 23\)

The survey was administered using an online questionnaire at the beginning of the semester. “No answer” was a response option for every question. Within the population, 90 students (62% female) filled out the survey.

We examined the association between the anxiety provoked by a particular evaluation technique and its perceived accuracy in assessing students’ skills and knowledge in regard to common evaluation techniques (oral presentations, term papers, and exams) as well as class-specific techniques (posters, lab reports, reflective journals, infographics, and seminars). Please see the Appendix to review all questions asked about anxiety, assessment accuracy, academic self-efficacy, and locus of control. Note that the question asking participants to rate the amount of anxiety caused by various evaluation techniques is similar to that used by England and colleagues (England, Brigati, & Schussler, 2017) to evaluate the anxiety-provoking potential of different pedagogical approaches. The questionnaire also provided measures of each student’s locus of control and academic self-efficacy (McIlroy et al., 2000).

Additional questions asked about gender identification, academic program, program year, and predicted mark in the course. Most students were in their first year (33%), second year (23%) or third year (23%) and most reported majoring in social sciences (51%), humanities (26%), and education (13%). Natural science majors made up 6% of the sample.

All statistical analyses were performed using SPSS (version 24). The differences between populations were analyzed using ANOVA (analyses of variance). Correlations were examined by Pearson bivariate correlations. Mediation analysis was performed using a hierarchical linear regression. This study was approved by the Research Ethics Board of Bishop’s University.

Results and Discussion

Overall, the sample reported relatively high expectations, where 56% expected a grade of 80 or
above. Overall, students rated their self-efficacy as mean: $M = 48.74$, standard deviation: $SD = 8.45$ (range 31-90), with higher values indicating a higher degree of academic self-efficacy. The midpoint of the scale is 40 (McIlroy, et al., 2015). The mean value for locus of control was $M = 49.02$ and $SD = 8.62$ (range 25-68), with higher values indicating an internal (rather than external) locus of control. There were no significant gender differences with respect to locus of control ($t(68) = .159, p > .1$), or academic self-efficacy ($t(68) = 1.822, p > .05$).

![Figure 1. Perceived assessment accuracy and anxiety with respect to different evaluation tools. Different letters indicate significant differences. See Figure 2 for the number of participants in each group.](image)

To test our hypotheses, we compared four relatively common evaluation techniques in terms of the anxiety they provoke and the students’ perceptions of their accuracy as measurement tools. Multiple choice exams provoked less anxiety than long-answer exams, which, in turn, provoked less anxiety than term papers and oral presentations, $F(1,79) = 63.05, p < .001$ (Figure 1). The perceived accuracy was highest for long-answer exams, somewhat lower for term papers, and lowest for oral presentations and multiple-choice exams. We also evaluated less common techniques that, for the most part, were relatively unfamiliar to the students: academic posters, infographics, lab reports (in a population of non-science students), reflective journals, and seminar participation. The overall results are shown in Figure 1; while statistical comparisons were not done because of the small numbers and distinct student populations for each technique, it is apparent that novel evaluation techniques do not necessarily invoke greater anxiety than familiar tools. A preliminary examination of gender revealed that women reported more anxiety ($M = 3.02$ SD = .63) than men ($M = 2.58$ SD = .79), $t(68) = -2.54, p < .05$. This finding is consistent with a number of studies that find a higher prevalence of anxiety in women and minority groups (Bayram & Bilgel, 2008; Hembree, 1988; Wong, Cheung, Chan, Ma, & Wa Tang, 2006). In contrast, there was no significant difference in expected grade between males and females, $t(68) = -1.18, p > 1$. We did not have enough ethnic diversity within the study population to examine differences between minority groups.
As summarized in Figure 2, the correlation between anxiety and perceived accuracy varied between evaluation tools. Multiple choice, written exam, term papers and oral presentations were common to all groups and were therefore examined together. For evaluations unique to a course, they were combined in a “variable” and then split by evaluation type (bottom row of Figure 2). We observed a negative correlation for four techniques (term papers, oral presentations, seminar discussions, reflective journals) which means that these techniques provoke less anxiety in students who believe that they accurately portray their knowledge and skills. In contrast, anxiety was independent of perceived accuracy for both multiple choice and written response exam questions, as indicated by the correlation values of 0.013 and 0.019, respectively. Given the wide prevalence of these measures, it is possible that perceptions of accuracy are independent of feelings of anxiety. In other words, participants might reason that multiple choice and written exams must be sound measures because they are used so widely. A strong positive correlation was observed for lab reports and academic posters, suggesting that students felt the most anxious if they believed that the evaluation was accurate. In this case, the anxiety might stem from a so-called imposter syndrome whereby the evaluation might uncover inadequacies in their learning that they otherwise were able to mask (Kolligian & Sternberg, 1991).

It should be noted that it is still unclear why we are finding different associations across different evaluation techniques. The findings indicate a need to further investigate the taxonomies of the various evaluations to determine whether they are more subjective or objective, group or individual based, public (oral presentation) or private (test) and to better understand the role of anxiety in evaluation. If larger-scale studies provide similar data, these results can indicate which evaluation techniques could benefit from increased transparency in instructor evaluative procedures.

We averaged the perceived anxiety ratings for the five techniques to obtain a general evaluation anxiety score for each student, and examined correlations between overall evaluation anxiety, expected grade, academic self-efficacy, and locus of control (Figure 3). We observed a significant negative correlation (-0.199) between expected grade and overall evaluation anxiety (Figure 2). Thus, as shown by other studies (e.g., (Hackett, Betz, Casas, & Rocha-Singh, 1992; Roick & Ringeisen, 2017), greater anxiety predicts a lower expected performance. Furthermore, this association can be attributed to differences in academic self-efficacy, since the correlation between anxiety and expected grade decreases to 0.041 when self-efficacy is entered into the model. Students with a greater degree of academic self-efficacy expected higher grades and were less anxious. Locus of control was positively associated with expected mark (r(87) = .252, p < .05), but was not significantly correlated with anxiety (r (88) = -.133, p > .1), therefore no further mediation was tested with locus of control.
Addressing Individual Differences: Academic Self-Efficacy and Anxiety

Academic self-efficacy is both domain-specific and malleable; it may provide a useful and attainable target in our efforts to reduce student anxiety. Bandura (1997) proposed four sources of academic self-efficacy: mastery experiences, vicarious experiences, social persuasion, and physiologic state. These sources can be addressed by incorporating efficacy-enhancing teaching and learning strategies into the classroom (Cheung, 2015).

The most important efficacy-enhancing teaching strategy is creating opportunities for students to master challenging and meaningful tasks (Pajares, 1996); teaching strategies account for more variance in academic self-efficacy than either math background or ACT scores (Fenci & Scheel, 2005). Collaborative learning, in which students work together to solve a problem or complete a task (Laal & Laal, 2012), has been shown to provide efficacy-enhancing mastery experiences in multiple disciplines (Baldwin, Ebert-May, & Burns, 1999; Bong & Skaalvik, 2003; Fenci & Scheel, 2005; Pajares, 1996; Usher & Pajares, 2009). In contrast, lecturing and audio-visual presentations are not effective in this respect (Fenci & Scheel, 2005). For laboratory courses, inquiry labs, but not quantitative or directed lab activities, appear to promote self-efficacy (Fenci & Scheel, 2005).

The development of academic self-efficacy requires considerable buy-in from the students themselves. Committing to efficacy-enhancing, deep learning strategies requires greater cognitive investment than the surface learning approaches favored by many students (Phan, 2007). Deep learning favors understanding and elaboration over memorization and can be facilitated by the use of metacognitive learning skills such as goal setting and self-monitoring (Nbina & Viko, 2010). Schmidt and Ford (2003) observed that students who increased their use of metacognitive approaches during an online training course showed a greater increase in self-efficacy than those who did not.

Students estimate future successes based on previous experiences, especially for evaluations which are perceived to be accurate representations of their ability levels (Covington, 1985). Thus, providing detailed, individual feedback and recommending strategies for future iterations can facilitate self-efficacy (Margolis & Mccabe, 2006). Feedback must be honest and explicit; indiscriminate praise can be counter-productive (Hattie & Timperley, 2007). By understanding the causes of both their successes and their failures, students are more apt to set goals that are challenging yet achievable, and to invest more effort and commitment in their attempts to meet the...
goals (Hattie & Timperley, 2007; Locke & Latham, 2002). Feedback also facilitates self-efficacy calibration—the concordance between confidence in performance and accuracy of performance (Stone, 2000). Training students in metacognitive study strategies such as self-testing and self-monitoring can also facilitate better self-efficacy calibration (Hattie & Timperley, 2007; Stone, 2000).

For new types of evaluation, for which students do not have prior experience, watching peers succeed can be very helpful (Usher & Pajares, 2009). While not as effective as performance accomplishments, vicarious learning can also promote the development of academic self-efficacy and appears to augment the impact of the performance accomplishments (Bandura, 1997; Hackett et al., 1992). To be effective, students must perceive the peer model as similar to themselves, but also credible, competent, and enthusiastic (Artino, 2012). Instructors can play a role in training student models to be both credible and competent by ensuring that they are enthusiastic and perform at, or slightly above, the skill level of the other students (Artino, 2012).

Instructors can also address the physiological aspects of academic self-efficacy and of test anxiety itself by using relaxation techniques (Embse, Barterian, & Segool, 2013; Margolis & McCabe, 2006). Doherty and Wenderoth (2017) refined a novel approach pioneered by Ramirez and Beilock (2011), in which students spent 5 minutes writing about their testing worries at the beginning of an exam. Students then crumpled up the paper and threw it into the classroom corridor. This approach was shown to increase student performance and decrease student anxiety. However, it should be noted that, at moderate levels, the emotionality components (affective, physiologic) of test anxiety appear to enhance performance (Cassady & Johnson, 2002) by triggering adaptive self-regulation strategies (Schutz & Davis, 2000).

Addressing Evaluation Transparency: Evaluation Training?

These results also suggest that altering student perceptions regarding the assessment accuracy of open-ended evaluation tools could potentially reduce anxiety as well as increase the accuracy of our evaluations. Students considered oral presentations and term papers to be comparatively low in assessment accuracy and high in inducing anxiety. This disconnect between perceived performance and received grade may reflect instructors’ use of both explicit and tacit knowledge to evaluate student work (Rust, Price, & O’Donovan, 2003). The explicit aspect can be transferred from instructor to student by providing students with clearly articulated criteria. Transferring tacit knowledge, the sense of “knowing good work when I see it”, is more difficult, but can be revealed by shared practice and discussion (Rust et al., 2003), p.152. The analysis of exemplars (examples of an assignment representing designated levels of competence) in student groups, followed by an instructor-led discussion, may facilitate this process (Carless & Chan, 2017). Small-scale studies have revealed benefits such as increased performance (based on grades), increased confidence, and enhanced metacognition and academic self-efficacy (Hawe, Lightfoot, & Dixon, 2017). Our research group is currently investigating the hypothesis that explicit training in evaluative procedures will both reduce anxiety and increase performance.

Conclusion and Future Directions

This study examines the interplay of evaluation anxiety, expected student performance, and self-efficacy in undergraduate students. As the study was relatively small in size, our ability to analyze the question with a large degree of complexity was
limited. For example, extensive comparisons between groups was difficult for lack of power. A strength of this pilot is the breadth of evaluation techniques considered, as well as different areas of study. This approach uncovered the complexity of the topic. Different evaluation types evoked very different associations between evaluative anxiety and perceptions of measurement accuracy. Moreover, a larger study might be able to assess the goodness of fit of one evaluation technique over another depending on the learning goals. Our findings conclusively point to the need to continue this investigation on a larger scale.

Our conclusions from the present study are tempered by some limitations of the measures we used. For example, our measure of anxiety was limited to one question only and did not allow for a more in-depth analysis of particular components of anxiety such as physiological features (sweating, heart racing) and cognitive features (distraction, interfering thoughts). Several models in the literature suggest that test anxiety represents a multi-component construct including physiological and cognitive features (e.g. Liebert & Morris, 1967; Sarason, 1984), and that each of these components may be differentially associated with anticipated and actual academic performance (e.g., interfering thoughts; Sarason & Stoops, 1978). Our index of anxiety likely reflects a mix of these components and may mask some nuances of the relationships between anxiety, expected academic outcome, and self-efficacy. It would be of interest in follow-up studies to use a multi-component measure of anxiety to examine whether:

1. Type of student anxiety differs as a function of type of assessment
2. Expected academic outcome varies as a function of type of anxiety
3. The mediating role of self-efficacy in accounting for expected academic performance applies to all or only some of the components of academic anxiety.

Our study also found that self-efficacy explained the associations between anxiety and expected performance. Given the malleability of self-efficacy, this finding points to teaching strategies and evaluations that encourage students to feel that their grades are largely under their control. Here, evaluation transparency might be particularly useful.

For some evaluation techniques, anxiety might be influencing results. However, it is advisable to continue the focus on increasing self-efficacy to promote academic success.

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We would like to thank the students of our courses for agreeing to participate in the study.
Appendix A: Questionnaires

A: Rating of evaluation methods for perceived accuracy and degree of anxiety induced
Rate each of the following evaluation practices as to how well they measure your knowledge and skills. If you have not yet done the practice, predict how well it will measure your knowledge and skills. ((1) Very inaccurate, quite inaccurate, neither accurate nor inaccurate, quite accurate, (5) very accurate.)
Rate each of the following evaluation practices based on how much anxiety they cause you to feel. If you have not yet done the practice, predict how much anxiety it will cause you to feel. ((1) No anxiety, slight anxiety, moderate anxiety, significant anxiety, (5) extreme anxiety).

B. Academic self-efficacy scale and academic locus of control scale (McIlroy, Bunting, & Adamson, 2000)
The following are the kinds of statements that people use to describe themselves. Read each one carefully and decide the extent to which each statement applies to you. There are no right or wrong answers. For each statement encircle the number which best describes you (1-strongly agree – 7-strongly disagree). Please respond to all items.

Academic self-efficacy:
I am confident that I can achieve good exam results if I really put my mind to it.
If I don’t understand an academic problem, I persevere until I do.
When I hear of others who have failed their exams, this makes me all the more determined to succeed.
I am confident that I will be adequately prepared for the exams by the time they come around.
I tend to put off trying to master difficult academic problems whenever they arise.
No matter how hard I try, I can’t seem to come to terms with many of the issues in my academic curriculum.
I am convinced that I will eventually master those items on my academic course which I do not currently understand.

I expect to give a good account of myself in my end-of-semester exams
I fear that I may do poorly in my end-of-semester exams.
I have no serious doubts about my own ability to perform successfully in my exams.

Locus of control scale
If I do not do well in my end-of-semester exams, I have only myself to blame.
My exam results will be directly related to my work throughout the semester.
No matter how well I prepare for my exams, I have no guarantee of being successful.
Getting good ‘answerable’ questions in my exams is something of a lottery.
Thorough revision before my exams is more than likely to issue in a successful outcome.
My exam results are likely to be influenced by the mood of the exam marker at the time.
Luck plays a stronger part in exam results than preparation.
Hard work throughout the semester is certain to be positively reflected in my exam results.
If I prepare myself well for my exams, the examiner will surely detect my efforts and reward me accordingly.
All in all I feel that I am largely in control of my own exam outcomes.

C. Other Questions
What grade do you expect to get in this class? (dropdown menu of percentages)
What is your estimated overall academic average? (dropdown menu of percentages)
With which gender do you identify? (free text)
What is your name? (free text)
What year are you in school? (dropdown menu)
Adapting Curriculum for a Changing Context: Place-Based Pedagogies in Tourism

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Thompson Rivers University

Changing demographics at post-secondary institutions in Canada provide opportunities for intercultural learning. Curricular design that engages domestic and international students can result in new ways of knowing, seeing, and understanding multiple perspectives of and connections to place. This paper draws on students’ reflections to highlight the effectiveness of place-based and intercultural pedagogies in cultivating a deeper understanding of multiple perspectives of local landscapes, including those of indigenous, non-indigenous, domestic and international students. This is particularly relevant to the study of tourism, an inherently place-based discipline.

As a university tourism professor, I stand at an intersection where I am in place and students come to me; after experiencing the social and historical diversity of their adopted community and those of their classmates, they then go back out into the wider world, hopefully with a broader, deeper view of their own and others’ cultures. This is especially important in the evolving context of Canadian post-secondary education.

Between 2008 and 2016, Canadian universities have seen an 87% increase in international enrollments, a social and geographical response to the targeted recruitment strategies of many Canadian institutions (Gov’t of Canada, 2017). Such an increase in cultural diversity requires continued engagement with students of many different cultural backgrounds, educational experiences and communication styles. A major challenge in this context is understanding how the rhetoric of internationalisation, interculturalisation and mobilisation at the institutional level translates into the students’ lived experiences on campus and in the classroom. Studies from Australia, the United Kingdom and the United States concur that the presence of cultural diversity on our campuses does not necessarily mean that there is a higher level of intercultural learning among students (Bennett, 2012; Knight, 2011; Leask, 2010). Simply sharing a classroom or campus does not automatically result in successful cultural learning.
and without proper guidance and conducive conditions may in fact result in divisiveness and entrenched stereotypes (Allport, 1954; Arkoudis, et al, 2010; Pettigrew & Tropp, 2006).

From an educator’s perspective, this challenge due to changing demographics can provide opportunities for new ways of knowing, seeing, and experiencing the world. Deardorff (2015) maintains that in order for meaningful engagement to occur, there must be a shift from teacher-transmitted knowledge to learner-centred learning, allowing for student experiences and education to co-exist in real-world contexts. Most students have travelled somewhere in their lives and through this movement have come into contact with those who haven’t moved or travelled as much. Curricular design that purposefully draws on student experiences to engage domestic and international students in meaningful dialogue with each other can result in heightened awareness and interest in the geography and cultural diversity of their own and others’ places. While the definition of intercultural competence continues to evolve, student-centred learning continues to be the focus of intercultural competence models in the literature (Byram, 1997; Deardorff, 2006). Deardorff (2006) maintains that a holistic cyclical process allows for multiple dimensions of intercultural effectiveness (IE)—attitudes, knowledge and skills—to evolve and build student capacities to work across differences. In a two-year study examining intercultural experiences of 160 students, King, Perez, and Shim (2013) revealed that students use multiple approaches to understand intercultural differences including “a) listen and observe; (b) compare and contrast ideas; (c) engage in personal reflection; (d) explore personal identity as it relates to intercultural understanding, and; (e) empathise with others” (King, et al., 2013, p.76).

In order to encourage such reflection, exploration and empathy, Thompson Rivers University (TRU) has invested deeply in internationalising the curriculum to serve international students and encourage Canadian students to develop intercultural skills as global citizens. One of TRU’s Five Strategic Priorities prioritizes “programs and practices that support diversity, inclusion and intercultural understanding between our Aboriginal, local, regional and global communities,” and has adopted the following approach to increasing intercultural understanding:

1. The Indigenization of our university through the inclusion of traditional and contemporary Aboriginal teaching, learning, knowledge, research and creative practice
2. The internationalization of our university through the inclusion of globally-engaged teaching, learning, knowledge, research and creative practice
3. The recognition of the diversity and uniqueness of Canadian society including a local and BC perspective.
4. The creation of a culture of inclusion in all aspects of university work and life.

(Thompson Rivers University, 2019, p. 4)

My current research focus uses these supporting strategies and attempts to implement them in the classroom, in part through place-based learning and community engagement.

**Place-Based and Intercultural Pedagogies**

While place-based education (PBE) has its origins in community-based environmental education at the primary and secondary levels, place-based pedagogies have been applied in many educational contexts from nursing to language studies in many countries (Convery, Corsane & Davis, 2012; Sobel, 2005). Place-based education has been defined by the Centre for Place-Based Learning and Community Engagement as an “immersive learning experience that places students in local heritage, cultures, landscapes, opportunities and experiences, and uses these as a foundation for the study of language arts, mathematics, social studies, science and other subjects across the curriculum” (Getting Smart,
The intentional use of place-based and intercultural pedagogies can thus provide opportunities for students to share their perspectives about and lived experiences of their own and others’ cultural landscapes and facilitate intercultural understanding. Drawing on the work of Sobel (2005), place-based education is a pedagogy of community that recognizes the value of using local, physical, and cultural landscapes to teach a variety of subjects across the curriculum. One distinct value of place-based assignments in relation to intercultural learning is that students are given an opportunity to reflect on their personal cultural and historical frames of reference while learning about multiple student perspectives of place. Often the local’s perspective of place is layered with personal experiences, memories and histories that evoke and provoke responses to how we engage with familiar and unfamiliar spaces. Lane-Zucker (2005) suggests that “place-based education challenges the meaning of education by asking seemingly simple questions: Where am I? What is the nature of this place? What sustains this community?” These types of questions are fundamental in creating student engagement in the local community rather than being passive observers in the places they have come to study. This is particularly relevant considering the more recent nation-wide initiatives to Indigenize university curriculum and facilitate multiple ways of knowing and being in relation to both traditional and contemporary societies (MacDonald, 2016).

Interestingly, place-based perspectives at the post-secondary level are largely unexplored in the study of tourism—an inherently place-based discipline (Smith, 2015). Drawing on my work with the interdisciplinary Pedagogy of Place (PoP) research group at Thompson Rivers University in an effort to address this gap, my focus has expanded to include place-based and intercultural pedagogies to cultivate a deeper understanding of multiple student perspectives and lived experiences of local landscapes and to build cultural knowledge, understanding and skills at the classroom and community levels. To this end, I have incorporated place-based assignments into several courses, with the assignments designed to extend the learning community beyond the parameters of the university and to engage Indigenous and non-Indigenous domestic and international students in conversations about place, both at home and away. For example, in a second-year tourism course entitled People, Places and the Toured Landscape, I have paired domestic students with international students and required them to interview each other to determine the gaps between a local and a visitor’s knowledge of each other’s socio-geographical context. Written reflections of the interview experience revealed a sense of discovery and interest in international students’ perspectives and knowledge of Canada and the domestic students’ knowledge and perspectives of the international locations their partner students call home.

Before going further, we must consider the physical space—the intersection of land, history and culture—where the university is located. Thompson Rivers University (TRU) is a 15,000-student campus situated in Kamloops, British Columbia, Canada, on the traditional and unceded territory of the Tk'emlúps te Secwépemc band within Secwépemc'ulucw, the traditional region of the Secwépemc people. It is a small semi-desert city of 90,000, located at the confluence of the North and South Thompson rivers. A rich history of Indigenous and colonial narratives of place intersect with agriculture, resource extraction, ranching activities and well-developed recreational opportunities. Within the context of place-based pedagogy, Kamloops’s local landscape provides an opportunity to create discipline-specific place-based projects and hence a platform for high-impact practice in teaching and learning. A discussion of a particular course assignment in which I have incorporated place-based learning principles and strategies follows.
The Assignment

The assignment is a place-based one-hour walking tour in a 3rd year Community and Cultural Issues in Tourism course, with the intended outcome to deepen student engagement with course content and the local community. The process I used in developing this group walking tour assignment is detailed in my 2014 paper published in CELT entitled “Place-Based Tourism Curriculum: Making Connections to Community” (Reid, 2014). For the past five years, this same place-based walking tour assignment has been the focus of a research project with a colleague, Dr. Kyra Garson, to explore how preparing students for working with diversity can contribute to a deeper understanding of world views and ultimately build intercultural skills. Dr. Garson and I designed a pedagogical intervention to explore specific changes related to how student groups are formed, prepared for interaction across cultures, and evaluated on the process of working with culturally diverse peers (Reid & Garson, 2016).

Our study is framed by Deardorff’s model of Intercultural Competence (2006, 2009) to investigate whether the place-based group walking tour assignment resulted in enhanced intercultural understanding among students. Specifically, our study focused on the three components of Deardorff’s (2009) intercultural model with the intention of investigating the level of acquired attitudes, including openness, respect curiosity and discovery (p. 4), knowledge/comprehension which includes “culture specific knowledge, especially a deeper understanding of worldviews, historical contexts and other influences on a culture” (p. 6), and skills which include the ability to listen and observe with a particular emphasis on being able to engage in active reflection (p.6). This research project, which received TRU Research Ethics Board approval (File #100477) in 2013 and is currently active, relies on student self-reflections to determine whether a place-based walking tour assignment facilitates a shift in attitudes, knowledge or skills resulting in enhanced intercultural understanding.

Methodology

At the end of the term, students are required to submit individual, self-reflections on their processes of creating the walking tours in Kamloops and working in diverse student groups. Students are required to provide full explanations to support their responses to 14 questions, five of which were place based and nine which were focused specifically on the process of working in groups (Reid & Garson, 2016). Student responses were thematically coded and analyzed using Nvivo qualitative analysis software to investigate their intercultural learning through place-based curriculum and the walking tour assignment, with the objective to determine whether place-based pedagogies can cultivate a shift in attitudes, knowledge, and skills and ultimately enhance intercultural learning. The focus of this study emphasized the following three place-based questions:

1. Before this assignment, had you thought much about place?
2. By completing this assignment, do you think differently about place, either as a specific place itself or what place means to you?
3. Did this place-based assignment influence how you connected with the rest of the course material?

These questions continue to form the basis to guide students’ feedback and course-related assignments regarding place-based classwork in a range of my 1st, 2nd and 3rd-year tourism courses.

Outcome

Tracking and follow-up from 86 student reflections collected over four semesters (Fall 2013, Winter 2013, Winter 2014, and Winter 2017) indicates that an intercultural shift occurred for 60 of the 86 students, with a shift in knowledge (culture-specific or regarding self-awareness) as a primary outcome. Conclusions could not be drawn from the remaining 26 student responses, as they were either too vague,
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did not indicate whether they had experienced any kind of intercultural shift or answered the questions about place as a destination rather than as an intercultural experience. This outcome suggests that intercultural engagement and learning increases when students are given the opportunity to engage with the local community where they have come to study and to relate this experience to the context of their own home.

This echoes Lippard’s observation that "travel is the only context in which people ever look around. If we spent half the energy looking at our own neighbourhoods we’d probably learn twice as much" (1999, p.13). One option given to students in the walking tour assignment is that of creating a tour for locals as tourists in their own community. Reflections from local students regarding their knowledge of and engagement with the Kamloops landscape suggests an increased understanding of how people connect to place.

As locals we barely even engage in our own cities. I assumed that I would know more than any visitors about my place of residence, however, I now understand that visitors who have taken tours here are probably more educated about Kamloops heritage and art than I am! I think that as locals or tourist we all have to stop and look around more often rather than leading our busy, isolated lives” (Fall 2013, Domestic Female).

A number of student reflections included assumptions of Kamloops that produce and maintain an understanding of place from a distance. Hence, their experience of Kamloops was similar to looking at the landscape through a picture frame—the view is limited in scope and the response is often visual rather than experiential. Often, students (both domestic and international) arrive in Kamloops with preconceived notions of place, a characteristic evident in tourism in general, when tourists bring with them predetermined perceptions of place before their trips begin.

Three years ago, when I came to Kamloops to study, I did not really like the city. I even told my parents that I lived in a boring desert. Now, I realized I was wrong (Fall 2013, International Male).

Both domestic and international students indicated that prior to the walking tour assignment they had not spent much, if any, time exploring the Kamloops landscape outside of the amenities and box stores in the vicinity of the university. Both the familiar and unfamiliar spaces were referenced by students reflecting on their initial perceptions versus their lived experiences of Kamloops.

Learning about the history of the city and what Kamloops used to look like gave a lot more meaning and thought to just walking down the street…. Now when I walk down the street, I think about how much this city meant to the locals and how important it was as an industrial center back in the 1900s. It is not just a small university town, but one filled with rich history and people (Fall 2013, Domestic Female).

A personal conversation with an international student in her 4th year of study revealed her disappointment in not knowing more about Kamloops during her first three year of study—she only learned about Kamloops through the walking tour assignment as she was departing. After this conversation, I began to wonder how many students leave campus at the end of their programs with a limited experience or understanding of the cultural and historical significance of the place they called home for the duration of their studies. How many opportunities to bring discipline-specific content into the community, and, conversely, to incorporate community into the classroom, are missed? Drawing again on the work of Lippard, she notes that “the special experience of a landscape can be impressive
because it evokes a known place or, on the other hand, because it is so totally unfamiliar” (1999 p.9).

Perhaps one of the more rewarding experiences of watching students find connections to an unfamiliar place was when one group, comprised of two domestic students and two international students—one from China and the other from Japan—created a tour of community gardens and the farmer’s market in the downtown area. During the presentation of their walking tour to the class, the student from Japan shared his first experience of the farmer’s market with enthusiasm and described his purchase of local produce to create a traditional Canadian Thanksgiving dinner for his Asian friends. When the class asked him how it went, he explained how he overcooked the turkey but resolved the issue by cutting it up and turning it into an Asian stir-fry. According to the student it was a successful Asian-Canadian Thanksgiving celebration.

In 2017, my research assistant, a 3rd-year student in the Bachelor of Tourism Management degree program was a participant observer in the community and cultural class. In her final paper she made the following observation:

As aspiring tourism professionals, developing intercultural skills is inarguably crucial. Students enrolled in the Bachelor of Tourism Management strive to work successfully in an extremely diversified industry. The majority of tourism careers that students would be pursuing post-graduation will inarguably require a well-developed understanding of other cultures and ways of life. It is an invaluable benefit for students to have this type of hands-on experience interacting with different cultures prior to graduation. The unfortunate reality is that there are countless students graduating across numerous faculties that graduate from their programs with no more than a sense of the world in which they have grown up in and are accustomed to. When place-based education is introduced to students, it gives them the platform to get out into the community and interact with locals and learn in a way that is more reflective and realistic to a workplace setting. As a student myself, I can’t begin to describe how valuable it is to have opportunities to apply what’s learned in the classroom in real life settings (Fauve Garson Stewart, Directed Studies reflection, 2018).

Her observation of theoretical concepts learned in the classroom and the opportunity to apply these concepts through practical application is also noted in several student reflections.

The case helped me a lot to apply concepts that we learned in the class to a real-life experience, so instead of sitting home and working on my laptop, I actually went out and visited the site and that helped a lot to translate the concepts in the course material to real life experience (Winter 2018, International Male).

I think differently about Kamloops. I had never really connected myself to Kamloops even though I live here. I had always wanted to learn about different places not the place I am. I have learned a lot about Kamloops through this course. (Fall 2014, Domestic Female).

This dynamic between local students’ perceptions of their home place and international students’ perception of the place they had come to study was noted in the student reflections.

After doing this I do think differently about what place means now. Before it was just to go see something but now it so much more like what are the people who live here like, also about the culture of that place and not just about the buildings. It also made me think about what the place has to offer that can give you a positive experience of
that place, like learning about Peterson Creek rather than just think about going on a long a tiring hike. (Winter 2017, International Male)

Other major themes noted in the research findings involved the students’ observations of how place meaning is shaped through personal experiences.

As a new immigrant in this country, I have been eager to experience the authentic culture to gain and feel a sense of belonging. I used to think even if I was living in the country and had the access to the authentic culture, I still felt nothing within my body. However, after completing this place-based assignment... I think as long as I actively participate in an activity (group meeting or the actual tour), the process of the activity will be authentic, and culture will be learned from the activity (Fall 2013, International Male).

This student’s personal reflection demonstrates a compare and contrast strategy (King et al., 2013) where an intercultural experience helped them make sense of their new knowledge within the context of previously held perceptions or experiences. Another common theme arising from intercultural and place-based pedagogies is the importance of understanding histories and the political and cultural context of place from which world views of individuals and societies emerge.

After the completion of this assignment, I realized that place means so much to everyone and not just me. People like to bring a part of their home wherever they go. From the businesses we talked to and the other ones that our classmates presented on, it goes to shows how strong a sense of place is when interpreted correctly. It reminded me of a quote from one of Chimamanda Adichie's books that said, "our histories cling to us, we are shaped by where we come from” (Winter 2014, International Female).

Place-based assignments that include intercultural perspectives of place to strengthen student capacity for understanding, empathy, and mutual respect across cultures are particularly relevant with respect to the Truth and Reconciliation Commission’s (TRC) calls for Canadian educational institutes to include Indigenous perspectives and lived experience of place. In 2017 and 2018, curriculum in the Community and Cultural Issues in Tourism course at TRU was redesigned to include Indigenous and colonial narratives of the Canadian landscape. As a non-Indigenous instructor, Indigenous stories are not mine to tell. Those were related by guest lecturers who shared personal experiences of Indigenous histories. Of the 60 participants who indicated an intercultural shift, seven of the 18 students in the Winter 2017 class spoke in depth about Indigenous histories, whereas only three students from previous years did so. This course revision appears to have resulted in an increased understanding of history as being complex, in that stories of the landscape are both shared and contested by the players involved.

Yes, especially when looking at Aboriginal tourism. We don’t know what stories there are to tell about the landscape, place or community. Just because one group has one story of the place, another may have a completely different one. We have to be aware of what we know about a place, and even more aware about what we don’t know (Winter 2017, Domestic Female).

Through stories of place connections, students are able to develop a deeper understanding of other cultures and ultimately increase their capacity for empathy and mutual respect. As observed by King et al. (2013), empathy is one of the more complex approaches to understanding intercultural experiences. This level of complex learning was evident in the following domestic non-Indigenous student group reflection, as they struggled with
deciding what content to include in their walking tour.

In our walking tour, we touch on the tensions between the Indigenous people and the settlers in the Kamloops area. There is so much about western literature that perpetuates colonial views. Are we contributing to that in our walking tour? We did have a disclaimer in our tour about offensive terminology, but now I feel like that isn’t enough. At the same time, I question whether giving a lengthy lecture about the treatment of Canada’s Indigenous people would decrease the entertainment value of our tour. Then it becomes a discussion about commodifying culture and is it okay to convey a colonial perspective about Indigenous culture for entertainment and money? It’s a tricky topic, and I don’t think we were insensitive about it, but if it were to become a real tour, it would need to be approached with even more cultural sensitivity and probably should get input from the Kamloops Indian band. Especially considering our target market consists of mostly Europeans who likely have a very “cowboys and Indians” [sic] view of the Wild West [sic], and our tour doesn’t do anything to deconstruct those stereotypes (2017 Winter, Domestic Female).

Student reflections also revealed that histories can be complicated, and that stories of place can be both shared and contested. During the four semesters during which data was collected, only a handful of students self-identified as Indigenous and participated in class conversations about Indigenous histories and colonial narrative. One Indigenous student explained how her perceptions of, and connection to her home place were shaped by her knowledge of the English language and, regretfully, not by the traditional language of her elders. Through this student’s reflection on her personal identity and loss, other students were able to explore their own personal identity as it relates to intercultural understanding and empathy.

This call for empathy is important. In working with curriculum that engages students from different cultural histories and lived experiences, I have realized the value of building rapport with our students in order to create a safe environment for intercultural interactions that promote understanding. When we ask students (both international and domestic) to share their life experiences there must be an element of trust between instructor and student. Assignments that are specifically designed to engage visiting students provide opportunities for me as an instructor to know who they are and some of the challenges they may be facing while being away from home. Recognizing this, I consciously work to create spaces where students feel comfortable expressing themselves, intellectually, creatively and emotionally. In a post card assignment for the Introduction to Tourism Course, for example, a student from China submitted a hand-drawn postcard of a sole individual with arms raised to the sky. The background was filled with colourful, explosive images of a celebration. In his reflection, he described how homesick he was for his family during the Chinese New Year and that he did not have any friends in Canada with whom to celebrate. In recognition of their trust in showing their emotions, in my written comments to my students I thank them for sharing their personal experiences and let them know that I am always available to support them in that regard.

Going Forward

Because student feedback on the course has been so favourable, I will continue to refine and develop new place-based assignments to give students opportunities to make connections to place, wherever they are, and to reflect upon their personal horizons of experiences and interpretations of the world in which they find themselves. Throughout Canada we have many settings, both urban and rural,
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that provide opportunities for high-impact place-based learning across disciplines. Regardless of the disciplinary lens we use, there are as many cultural ways of seeing and perceiving landscapes as there are landscapes themselves (Lippard, 1999). My focus has been to build and adapt curriculum within the context of tourism in a way that encourages students to value multiple perspectives of place and to recognize that there are many different lived experiences to experience in a global environment. Going forward, I will continue to consult the literature for current research on intercultural effectiveness and the integration of learning in my course content in order to provide further frameworks that can be used to explore and benefit from intercultural learning in the context of place-based pedagogies.

References


### Biography

Robin Reid is an Associate Professor in the Tourism Management Department at Thompson Rivers University (TRU). Her research interests include sustainable communities, cultural narrative and sense of place in urban, rural and wilderness landscapes.
Using Visual Narratives (Comics) to Increase Literacy and Highlight Stories of Social Justice: Awakening to Truth and Reconciliation

Jessica Motherwell McFarlane, Ph.D.

How can creating a simple stick figure comic help us tell — and deeply listen to — true stories of social injustice and practice anti-oppression strategies? More specifically, how can creating a series of stick-figure comics help learners enhance their understanding of the Indigenous Peoples’ testimonies in the Truth and Reconciliation Report (TRC, 2015)? In my experience, stick-figure visual narratives can help participants tell stories of social injustices and practice ways that might restore right relations. In this paper, I provide a background story and a literature review in describing the rationale and method of using this approach to teach social justice concepts and rehearse pro-social interventions. I conclude with a detailed lesson plan for using the social-justice comics method for visually presenting the TRC 2015 report.

My visual narrative story began when I first designed and then offered Life Outside the Box comics-based lesson plans to teach at-risk youth about grit, resiliency and character strengths (Author, 2018). In every classroom I visited across B.C., I encountered consistent — sometimes remarkable — learning outcomes when using various visual narrative techniques. Inspired by this success with middle schoolers, I adapted and then introduced the social-justice comics into post-secondary classrooms and workshops for professional educators, where I observed similar success.
The purpose of this paper is three-fold. First, I review the literature about the general learning and memory advantages of drawing and comics. I discuss the special advantages of using stick-figure comics to create visual narratives. I present evidence-based and theoretical discussion from the disciplines of neurophysiology, cognitive psychology, reading and literacy, visual narratives studies and analyses of the drawing process. Second, I discuss my observations — from an educator’s perspective—when using the social-justice comics lesson plan for visually retelling Indigenous Peoples testimonies in the Truth and Reconciliation executive summary (TRC, 2015). I will be reflecting on my general observations and noting procedures that tend to facilitate participants image-making process and understanding of the TRC content. Third, I will present in step-by-step detail the methodology for the social-justice comics lesson plan.

Truth and Reconciliation Visual Narratives — The back story

In 2015, I was teaching approximately 100 students in a diversity course for the Law Enforcement Studies program at the Justice Institute of British Columbia. I am a White, female, feminist educator from British settler heritage and was completely new to teaching indigenous course content. Our students were 18 to 23-year-olds who were motivated to be of service in law enforcement. Many were only just awakening to some social justice issues such as racism, sexism, and colonialism. Lessons about social justice could be contentious as some students journeyed from first disbelieving that bias and institutional discrimination existed, to eventually acknowledging the reality of social injustices, to adopting a critical practice routinely looking for systemic bias and discriminatory practices and policies. In addition, a significant number of our students were reluctant readers—able to read but choosing not to. To address the above teaching/learning challenges, I routinely adopted a practice of finding creative or surprising new ways for our students to encounter and learn from the diverse course content.

Then the Truth and Reconciliation (TRC) executive summary (with approximately 250 pages of text, excluding references and appendices) was published. I was inspired to design a vigorous and meaningful response to the TRC’s call to indigenize course content. I knew that our law enforcement studies students would not have the capacity or motivation to read 250 pages of text. I also knew that asking our students to witness the TRC testimonies of people who were harmed in residential schools and other colonized institutions would be emotionally arduous and potentially triggering—especially for our Indigenous-identifying students.

I decided to divide up the TRC challenge amongst all 100 students, each reading approximately 2.5 pages until they collectively had read the entire document, cover-to-cover. I adapted the social-justice comics lesson plan to suit a post-secondary audience so learners could translate their assigned textual reading into visual narrative form. It was my impression as I observed the social-justice-comics activities in various settings that the majority of participants found creating stick-figure social-justice-comics enjoyable. The visual narrative style seemed to me to be particularly suitable for conveying the emotional content of the TRC stories. In addition, most students felt proud to be engaging in reading the TRC report.

After the TRC report was read and the comics created, we assembled the images in order of the page numbers in the TRC report. I booked the JIBC theatre and document camera. Each student lined-up on stage, narrated her or his comic, and quietly walked back to sit and experience the unfolding visual narrative. I was astonished to observe the hush in the theatre and the sustained focus of our students as they actively leaned in to read each stick-figure
Students silently lined up, awaited their time on stage at the document camera, and quietly walked off stage as if performing their individual role in a greater collective visual narrative of the TRC stories. That is, students were witnessing through a series of visual narrative performances. Some students were moved to tears by the stick-figure depictions of the stories of atrocities toward the children in residential schools. The stick-figure style seemed to underscore the vulnerability of the children. When I compared students’ before and after comics—personal learning reflections—about students’ own attitudes to learning about Indigenous issues, I found the majority of students became more aware of institutionalized abuse, neglect and violence and more empathetic toward survivors of residential schools. Each learner created before-and-after images reflecting on their anticipation before and experiences after witnessing the TRC testimonies. While a minority of students indicated that their opinion about learning Indigenous issues did not change, many students depicted self-portraits showing shock, tears, and a newly formed perspective after reading/listening to the collective TRC visual narrative. As an educator, I was astonished to observe the sincere efforts and open hearted reactions of the group to each person’s stick-figure TRC comic presentation. The whole social-justice-comics lesson was completed in one three-hour class. The presentation of the stick-figure comic panels of 100 students took about 65 minutes.

Facilitating these learners’ visual narrative explorations of the TRC was surprising because it was simultaneously smooth, emotionally exhausting because of the traumatic TRC content, and deeply moving because of the sincerity and integrity that nearly every learner brought to the activity. Teaching the social-justice comics to our students so they could translate the TRC report into a visual narrative and then perform their witnessing of the TRC stories was, and remains, profoundly moving for me as the facilitator/educator. I have offered this TRC visual narrative workshop to seven cohorts of students and at four conferences and still find that facilitating retelling the stories told in stick-figure style are just as emotionally powerful with each offering.

**Literature Review**

Drawing, in general, benefits learning. For the purpose of our discussion, drawing is defined as a representation or look-alike of an object, character, or scene. Schematics, maps, and mind-mapping are not included in this discussion of drawing because they do not depict physical resemblance of the above (Van Meter & Garner, 2005, p. 288). Drawing by hand—as opposed to using computer assisted comic apps—adds a significant motor neurobiological experience that facilitates recall. The addition of human-computer interaction alters processing whereby the computer may perform some of the transformational tasks for the learner (Murphy et al. 2003). Comic Life and other comic or drawing apps can be used but may produce different results. Social-justice comics are drawn by hand using a sticker and markers. I have had learners use a comic book app to take selfie-like photos and act out how they would confront discrimination and restore right relations. The photos taken in the comic book app worked well for rehearsing social justice interventions. However, it would not be appropriate to act out scenes from the TRC or other complex, traumatic, or highly emotional texts.

Van Meter and Garner (2005) extensively studied learner-generated drawing of to-be-remembered words and concepts. Drawing words read in text gives the learner several benefits: improves observational processes or ‘seeing better how it works’ (Stein and Power, 1996), improve text comprehension in remedial readers (Fisher, 1976), stimulates greater interest in the text content (e.g., Ernst, 1997), encourages higher-order thinking (Britton and Wandersee, 1997), and increases students’ enjoyment of the learning activity (Biller, 1994). In addition, drawing (and comic-creating) is
intersubjective and leads to deeper reflection. Grennan (2017) explains that drawing is not just the finished product but rather the collection of every moment of “trying-to, in failure-to and in success-in achieving the goal of making them” (p121). Creating visual narratives may successfully achieve learning objectives because the intersubjective dance between the drawer and the drawn is a form of thinking through physical performance. In sum, drawing out concepts in the text under study necessitates the insertion of pauses, one’s own cognitive and emotional reactions, interior changes in perspectives, and a re-thinking of the meaning of the document that reading alone does not provide.

Wammes, & Meade (2018) found that drawing to illustrate a list of words, called the drawing effect, boosts memory. These researchers (Wammes, Meade & Fernandes, 2016) explained that drawing causes the learner to:

1. Elaborate on meaning (semantic processing)
2. Engage in hand movements (motor action); and
3. Visually inspect her/his/their created image (pictorial processing).

The optimal integration of the above three modalities while drawing provides additional vivid contextual information that text alone does not provide. Furthermore, these researchers found that the drawing effect is significant even when learners are given brief, 60-second drawing sessions and even shows a positive effect on memory recall when the time constraint is as short as four seconds. Of relevance to social-justice comics activities, Fernandes, Wammes, & Meade (2018) have shown the drawing effect benefit can be achieved regardless of artistic talent, (p. 306), concluding that the drawing effect is reliable and robust across conditions and experiments. The drawing effect has been shown to improve memory recall in older adults (Ally et al., 2008; Luo, Hendricks, & Craik, 2007) and has shown “massive” benefit for patients with dementia (Meade, Wammes, & Fernandes, 2018, p. 306).

Drawing is intersubjective and leads to deeper reflection. Grennan (2017) proposes that the process of drawing is intersubjective. A drawer begins with a goal, makes a mark, then stops to reflect, and that reflection leads the drawer to change perspectives, modify the goal, and make the next mark. Drawings, Grennan argues, are not just finished products or images but rather the collection of moments. Applying this intersubjective analysis to the process of visual narratives, the comic-creator (drawer) is changed and knows more about the subject at hand because of the intersubjective, back-and-forth between the author and the comic even when hesitating, making mistakes, erasing, starting over and ultimately succeeding in creating a visual narrative.

Social-justice comics provide several opportunities for learners to experience intersubjective deeper reflection. After reading the TRC, learners must decide what they think and how they feel about the content. Then, learners must decide what content would be interesting and important enough to teach back to peers. After choosing only two teachable scenes from the TRC pages read, the learner must reflect on how best to present the scene: composition, colour, and characters of the comic, how to use the required art materials, and what thought or speech balloons would best convey meaning. Artistic and semantic decisions are made throughout the process of creating the stick-figure comic. All the while the learner must be mindful of the intentional time-limit on the activity and limit the details in the comic to fit within the time constraint. Social-justice-comics provide learners with significant opportunities to imagine what peers need to know and reflect on how best to achieve that with a simple stick-figure image.
In this section, I will review some theories and evidence in the literature that may suggest how comics and, more specifically, stick-figure visual narratives can increase literacy and deepen understanding and empathy.

Drawing, in general, bestows considerable memory recall advantages and opportunities to reflect on a learner who draws while studying. What further advantages are there when the drawing comes in the form of a comic or a series of visual narrative panels? The next section explores how comics give learners the experience of being an immersed experiencer, a strategy to reduce cognitive bias, encouragement and greater participation in the content, and discernment and other learning skills. In addition, comics and the gaps between panels may also provide innovative story-telling devices to sensitively talk around catastrophic events without having to directly depict traumatic events.

Comic-creating is an immersive experience. Bergen (2012) explains that “understanding language in multimodal ways is a lot like being there” (p.92). Making a link from Bergen’s discussion to the social-justice comics method, the multimodal process of creating and reading visual narratives encourages an “immersed experience” in which one can project her or himself “into a body of a character and simulate what it would be like to do things someone is described as doing” (p. 92). This automatic mental simulation of the actions of characters in a story is a remarkable and powerful tool for educators. Along a similar line, Polak (2017) explains how visual narratives “prompt the reader to engage differently (when compared to text-only modes) with content, particularly in terms of empathy and identification (p. 1). As a matter of course, in classrooms and workshops, I have observed that many comic-creators and readers/listeners become fascinated, “immersed experiencers” and in many instances show empathy for the subjects (characters) in the personal and social justice stories depicted.

A social-justice comics lesson plan may reduce cognitive biases. Reality is far more complex than we can ever perceive. Wilson (2004) estimates that we are exposed to eleven million pieces of information per second. The genius—and curse—of human cognition is that we have pre-cognitive biases that help us only attend to the stimuli that are relevant to our physical, psychological and social lives. There is a large body of evidence showing these implicit, confirmation, and other cognitive biases (e.g., see Banaji & Bhaskar, 2000). For example, Ayodogan et al. (2018) measured the neurophysiological effect of introducing a bias prior to participants judging a musical performance. These researchers found that the pre-task bias had effects on the participants ability to accurately perceive the music over a long duration. Fortunately for educators and other professionals, Ayodogan et al. (2018), also have preliminary data showing that “deliberative thinking” can reduce the behavioural bias that results from pre-existing cultural stereotypes and other biases. Specifically, these researchers have shown that “deliberate and effortful thinking can play a crucial role in overcoming cognitive heuristics related to socially constructed concepts and stereotypes” (p. 8). Thus, the method involved in the social-justice comics lesson plan (i.e., read text, choose two teachable moments out of several possibilities, transcribe text into visual narratives, show comics to peers, and tell peers about the comic), scaffolds and sustains experiences that invite participants to engage in precisely the "deliberate and effortful thinking" that can lead to reduced cognitive bias.

 Inviting visual structures encourage greater participation. Postema (2013) explains that visual narratives—and the gaps between panels (i.e., gutters)—invite readers to “reconstruct” the written text. In other words, “readers use their knowledge of actions, of causality, to fill in gaps” (p. 107). Postema calls this filling-in the gaps “darning the holes” (p. 113) in the story. Comics and the gaps between panels make readers active participants in discerning the meaning and significance. The image/text...
narrative becomes “a system of reconstruction-inviting structures” (Postema, 2013). Comics invite a reader’s more vigorous participation and reconstruction of the story out of the fragments (panels and gaps) than text-only narratives. The gutters or gaps play a role in the invitation to be an active reader. Postema explains that the plot of comics depends upon readers filling in the gaps in the story (p. 113). The gutter and the reader’s inferences are as crucial to moving the plot along as the content in each panel.

Creators must use discretion to choose which detail to show. When readers transcribe text into visual narrative form, they must discern which elements and issues are most important and should be included, and which can be set aside. Furthermore, out of all of the elements and issues that are worthy of discussion, the comic-creator must choose one issue upon which to focus and then abstract (e.g., in the current workshop, using stick figures) the essential elements of the story under study. Duncan, Smith, Levitt, (2015) call this abstraction process, synecdoche: “using part of something to represent the whole thing. All images on the comic book page stand for more reality then they can depict ... the images are, by necessity, and abstraction from the real” (p. 144). Educators will recognize that to choose, discern, and abstract are activities that can be classified as application, analysis, and synthesis, respectively, on Bloom’s Taxonomy of Learning.

Comics represent the unrepresentable. Creating visual narratives for the purpose of witnessing, documenting and truth-telling can sometimes mean connecting with stories of catastrophic harm. Polak (2017) explains that “graphic narratives engage the readers’ emotions and ethical norms in complex ways in the representation of historical atrocity” (p. 2). Polak frames this ethical challenge as “the need to represent the unrepresentable” (p. 7). Some catastrophic harm is “unrepresentable” because it is too traumatic to depict directly without being triggering. Catastrophic harm must, therefore, be visualized obliquely by showing the outcome rather than the harm-in-process. This challenge of how to respectfully engage in stories of historical atrocities is especially relevant when working with the Truth and Reconciliation testimonials. Respectful construction of visual narratives and the conscientious use of gutters (gaps) between panels allow readers to infer rather than be explicitly shown extreme depictions. Thus, visual narratives can help provide a trauma-informed process to help readers safely and truthfully engage in historical material that has the potential to trigger emotional distress.

Thus far, we have discussed the considerable advantages of drawing out concepts being read in texts. We have also seen that the genre of comics and the process of creating visual narratives multiplies the learning advantages of drawing. We have one final powerful comic imaging technique to consider—stick-figure comics.

Stick-figure visual language is at-the-ready in the human brain. Peelen and Downing (2005) found evidence that the body-selective fusiform region of the human brain responds stick-figure depictions of bodies. In other words, neural activity in this area of a healthy human brain only occurs if a person is viewing a stick-figure body, that is, a stick torso combined with two stick arms and two stick legs oriented in a way to look like a human. The stick-figure body does not even need a circle for a head for us to recognize that we are seeing a stick-figure person. Astonishingly, humans are biologically ready to communicate in a visual narrative language, using stick figures. This neurophysiological readiness to interpret and create stick-figure comics means educators may use stick-figure visual narratives to engage students who are reading/writing-challenged or reluctant to participate in text-based lessons that require story-telling or documenting their understanding. Indeed, I have observed how people, both children and adults, easily take to the stick-figure form with very little instruction required.
When learners read the TRC and are instructed to teach back what they understand using a stick-figure comic, they are not only accessing the advantages of learner-generated drawing, and the other cognitive and reflective gifts involved in the drawing effect, and further benefiting from the story-telling advantages and learning outcomes involved in comics. They are also tapping into an in-born, stick-figure visual language that can be accessed, used and comprehended with relative ease. I have observed that most participants find stick-figure story-telling fairly easy: easy to get started, easy to be creative, easy to populate the image with essential characters in the scene, easy to elaborate on one’s message through well placed thought and speech balloons, and, when corresponding show-and-tell verbal narration is provided, easy to enter into the dramatic stick-figure scene created by peers. This at-the-ready, neurobiologically-primed, stick-figure visual language ability may be the key to the apparent instant immersion into the TRC content that I experience as the facilitator and observe in participants.

Summary

At first glance, stick-figure comics may seem to be just beginners’ art—something small children start with and then give up in favour of real drawing. The consistent success in using stick figure comics in a variety of educational settings, however, strongly suggests that there is more to stick-figure story telling than beginners’ scribbling. The current literature review yielded several theories and some scientific evidence that may help answer the question: “How do stick-figure visual narratives increase literacy, deepen understanding, decrease biases, and grow empathy?” Specifically, there were 13 lines of inquiry that might help explain the success of the social-justice comics:

1. Drawing by hand adds significant motor neurobiological experience that facilitates recall.
2. Drawing by hand what is read in text improves observational processes (Stein and Power, 1996); improves text comprehension in remedial readers (Fisher, 1976); stimulates greater interest in the content (e.g., Ernst, 1997); encourages higher-order thinking (Britton and Wandersee, 1997) and increases students’ enjoyment of the learning activity (Biller, 1994).
3. Drawing (comic-creating) is intersubjective and leads to deeper reflection.
4. Drawing to illustrate a list of words boosts memory (the drawing effect).
5. The drawing effect is significant even when learners are given a very brief drawing session.
6. The drawing effect benefit can be achieved regardless of artistic talent (Fernandes, Wammes, & Meade, 2018, p. 306).
7. The drawing effect is reliable and robust and has been shown to improve memory recall in older adults (Ally et al., 2008; Luo, Hendricks, & Craik, 2007).
8. Narratives encourage the reader’s imagining being there which foster an “immersed experiencer” (Bergen, 2012).
9. Social-justice comics lesson plan may reduce cognitive biases by scaffolding and sustaining experiences that invite participants to engage in precisely the "deliberate and effortful thinking" that can lead to reduced cognitive bias. (Ayodogan, et al., 2018).
10. Comics are “reconstruction-inviting” visual structures that encourage greater participation (Postema, 2013).
11. In the social-justice comics lesson plan, participants must use discretion to choose which detail to show.
12. Respectful construction of visual narratives and the conscientious use of gutters (gaps) between panels allow readers to infer rather than be explicitly shown extreme depictions (Polak, 2017).
13. Perception of stick figures in visual narratives is built into the human brain (Peelen & Downing, 2015).
Far from being a beginning artist’s scribble, the humble stick-figure comic appears to access a built-in visual language in the healthy human brain. Drawing for the purpose of representing the real world and stick-figure comics are two separate processes—the former can take considerable time to master, the latter is an at-the-ready visual language system—ideal for telling stories in visual narrative form. The current literature search yielded several possible explanations for the success of the social-justice-comics. The observed successes in classrooms and workshops may be connected to any or some combination of the above findings/theories.

**Method**

*Social-justice comics* lesson plan and procedural advice. In this section I will provide step-by-step instructions on the *social-justice-comics* lesson plan and add advice about ways to help along a visual narrative lesson.

**Materials**

![Figure 1. Stickers used in social-justice-comics. Participants are instructed they must use at least one sticker—and may use as many as they wish in their stick-figure comics.](image)

**Stickers:** 8-10 “loopy” stickers per person (see Figure 1). These are Avery reinforcement stickers designed to be used for the holes in loose leaf papers. The neon coloured stickers can be used on white backgrounds. Unfortunately, these stickers are going out of print and are getting harder to find. Other, reinforcement stickers are available online.

**Paper:** 1 pre/post reflective comics worksheet (see Appendix A) 1 TRC visual narrative worksheet (see Appendix B) (Optional: instead of worksheets, use 5” X 8” blank index cards)

![Figure 2. Examples of ways “loopy” stickers can be used to create stick-figure comics.](image)
**Markers:** Use broad-tipped washable children’s markers. Offer a variety of colours — enough for three colours per person. Note: These markers can bleed through a standard white page so single-sided printing is recommended. Optional: Offer well-used pencil crayons, sharpened to a good point and stored in a plastic bag or clear box.

**Advice:** 1) Take markers or pencil crayons out of the "pretty" store package and put loose in a plastic bag. A casual bag of markers is less intimidating for the “I can’t draw!” folks than a perfectly packed set of markers. 2) don’t offer pencils for two reasons: a) finished pencil marks are too faint to be seen during show and tell. b) some folks spend too much time erasing their work and redoing. Never offer erasers! 3) Permanent markers (e.g., Sharpie brand) are toxic, smell bad in classrooms and require a well-ventilated space. It is best to avoid permanent markers, especially with younger students.

### Procedure

**Warm-up activity.** Design a warm-up stick-figure activity with a humorous theme that will generate a few chuckles or smiles during show-and-tell. For example, “create a comic that shows the first thing you said to a person today”, or “the funniest conversation you overheard lately”, etc. Share some or all comics in a show-and-tell session.

**Advice:** 1) Always offer a warm-up stick-figure activity within the first ten minutes of a session to avoid building anxiety for the “I can’t draw!” folks. It is best to quickly set their mind at ease about how easy it is to make stick-figure comics. 2) Say, “there is only ONE rule: you MUST use at least ONE “loopy” sticker in each image. You may use as many stickers as desired so long as there is at least one sticker per image.” This sticker appearing in one comic after another creates cohesion, similar art style, and visually “stitches together” the finished, collected visual narrative. 3) If desired, use Figure 2 to show some of the ways the loopy stickers can be used in a stick-figure comic. 3) Always give a ticking clock deadline to encourage quick, impressionistic stick-figure scenarios and discourage “perfectionistic works of art” which tend to cause drawing-challenged others to implode with feelings of incompetence. Thus, allow 2 minutes maximum on a countdown clock for warm-up activities and then get right to sharing.

**TRC visual narrative procedure**

1. “Pre-comic reflection” - Create an image that shows your typical reaction when you hear we will be covering Indigenous history or other issues. Be honest.
3. Create two images of “teachable moments” from the pages.
4. Faithfully “bear witness" and reflect on the evidence in the report (no outside information).
5. Write corresponding page numbers on your images.
6. Assemble the "visual narrative" images in TRC page number order.
7. Show-and-tell: each person narrates her/his/their images. Allow approximately 30-45 seconds talking time per comic being presented.

**Advice:** give several reminders to add the specific TRC page number to each comic panel — a detail easy to forget.
8. Personal reflections. After show-and-tell create an image to describe your reaction to the information in the collective Truth and Reconciliation visual narrative.

9. I have included a social-justice-comic from a past student who read pages from the TRC “Call to Action” section. This student chose to use this teachable moment to reflect on the big picture of the past, present and future of Indigenous Peoples in Canada. (Note: the year 2015, depicted in the epicentre of the image, was the publication date of the TRC report.)

Advice: It is common for participants to fill in their post-reflections immediately after making their comic but before they have witnessed the entire groups collected works. Thus, I ask participants to put a post-it note over the post-reflection panel and leave it there to remind them that we all peel it off and do our post-reflections together after the entire TRC visual narrative has been read/Performed.

Figure 3. A comic created by a student while attending the Justice Institute of British Columbia, Law Enforcement Studies program (Image included with permission and anonymous by request).

Conclusion

I want to encourage other educators and facilitators to use the social-justice comics lesson plan for any content that requires “deliberate and effortful thinking” (Ayodogan et. al., 2018, p. 8) either because the text is dense or complex, or because the content is likely to generate strong emotional or moral reactions by learners. I will conclude by saying that I feel inspired as a teacher when my students read complex texts, bravely encounter painful stories of social injustices, respectively witness and then document via visual narratives those stories and, then, take leadership in teaching their peers. Time and again, I have observed the social-justice comics
References


**Biography**

Jessica Motherwell McFarlane, Ph.D., is a research associate at the Justice Institute of British Columbia and a professional education consultant on gender, anti-oppression and social justice issues.
Appendix A

Jessica Motherwell McFarlane, Ph.D.
Justice Institute of British Columbia

Awakening to Truth and Reconciliation: Witnessing through graphic narratives

BEFORE

This is how I feel/what I think about Aboriginal issues before doing this Truth and Reconciliation exercise.

AFTER

This is how I feel/what I think about Aboriginal issues after doing this Truth and Reconciliation exercise and seeing other’s graphic narratives.

Life Outside the Box: Using graphic narratives for social justice and change.

Dr. Jessica Motherwell.p.hd@gmail.com
Appendix B

Jessica Motherwell McFarlane, Ph.D.
Justice Institute of British Columbia

*Awakening to Truth and Reconciliation: Witnessing through graphic narratives*

I read pages ____ to ____ of the Truth and Reconciliation Report.

Life Outside the Box: Using graphic narratives for CHANGE.

dr.jessica.motherwell.phd@gmail.com
Section II
Enhancing Undergraduate Student Self-Efficacy and Learning with a Community Service Learning (CSL) Nutrition Workshop Assignment

Giulia Coletta, Rakhshan Kamran, Ayesha Khan, Kim Dej, Janet M Pritchard

Community service learning (CSL) activities in undergraduate programs are associated with improvements in self-efficacy (confidence related to performing a specific task) and academic achievement. This study aimed to understand the impact of a CSL assignment on self-efficacy related to teaching community members about evidence-based nutrition and on the overall learning experience. Students were invited to participate in this mixed-methods study (surveys and focus groups), and the results indicate that the CSL activity not only increased students’ self-efficacy related to nutrition science communication, but also gave students a greater feeling of connection to their community and an opportunity to practice skills needed for future careers.

Self-efficacy, or confidence related to completing a specific task, is defined as the personal judgement of ability to organize and execute actions to meet a goal (Bandura, 1977). Self-efficacy is multifactorial, and can be influenced by four sources: mastery experiences, vicarious (observational) experiences, social persuasions and physiological and psychological states (Bandura, 1997). In addition to self-efficacy being a key construct in the social cognitive theory (Bandura, 2004), self-efficacy influences motivation and cognition (Zimmerman, 2000) and is related to academic achievement (Wood & Locke, 1987) and engagement in the classroom (Linnenbrink & Pintrick, 2003). Students who have higher self-efficacy for performance tasks are more likely to undertake difficult tasks in the future, are better able to persevere in challenging situations and tend to achieve higher grades, specifically in science disciplines (Zimmerman, 2000; Anderson, Winett, & Wojcik 2007). For these reasons, incorporating tasks into courses that can enhance students’ self-efficacy may be ideal for creating a more meaningful, authentic learning experience, and may help prepare students for post-graduate opportunities and future careers,
particularly in healthcare (Parle, Maguire, & Heaven, 1997).

Community service learning (CSL) is an educational methodology that combines service in the community with purposeful learning activities (Canadian Alliance for Community Service Learning, 2018). CSL is a newer concept in the Canadian university setting, but service learning is a term that has been used for decades. Service learning is described as course-based experiences where students participate in an organized service activity, which meets community needs, and involves student reflection to gain understanding of course content and enhanced sense of civic responsibility (Bringle & Hatcher, 1995). Service learning has been shown to have a positive impact on undergraduate students’ self-efficacy, as these activities typically involve teaching, research and service in, for, or with the local community (Baetz et al., 2012). Service learning positively impacts self-efficacy for community service, academic performance, values, and leadership skills (Astin, Vogelgesang, Ikeda, & Yee, 2000). Students who participate in CSL activities also demonstrate higher citizenship values and perceptions of social justice (Eyler, Giles, & Brazton, 1997), which may be important attributes for students seeking careers in healthcare; a popular career path for many science students. The aim of this study was to investigate the impact of a CSL, course-based activity on undergraduate science students’ self-efficacy for teaching community members about evidence-based nutrition practices, and to understand the impact of this activity on other aspects of the students’ learning experience.

Methods

Study Design

This study was embedded in a Level 4 advanced nutrition undergraduate course. Over the course of one semester in the fall of 2017, students designed and delivered a nutrition workshop to a community group of older adults, which was the CSL activity. The students worked in groups of four to develop a 45-minute interactive workshop on nutrition as it relates to the prevention and management of one of the following diseases: sarcopenia, osteoporosis, osteoarthritis, Alzheimer’s disease, type 2 diabetes, or cardiovascular disease. Students were given time in class to work on their workshops. Students were also instructed to use the peer-reviewed scientific literature and other quality nutrition resources such as Health Canada and Dietitians of Canada, to form the content of their workshops. Feedback on workshop content, learning objectives and activities was provided by the professor and teaching assistant throughout the course. The assignment was worth 40% of the students’ final grade, and consisted of:

1. Workshop guide: facilitator pre-reading, outline of learning objectives, active-learning activities, open-ended questions for each activity, resources and materials (35%);
2. Rehearsal of workshop in class for professor, teaching assistant and peer feedback (15%);
3. Community workshop execution (35%);
4. Video and photo reflection (10%); and
5. Peer evaluation (5%).

After the assignment was introduced to students and groups were formed (week 2), a research assistant invited students to participate in the study when the Professor and teaching assistant were not present (week 3). This study was approved by the institution’s Research Ethics Board, conforming to standards of ethical conduct in research involving human participants.

Participants

Participants were Level 4 Life Sciences students who were enrolled in a 12-week Advanced Nutrition course. The study included a convenience sample, as the number of student participants was restricted due to a course enrollment maximum. Students were
informed that their lack of agreement to participate in the study would not have an impact on their course mark. Data was collected between October 2017 and January 2018 by a research assistant, who was not enrolled in the course. At the end of the semester (December 2017), the research assistant recruited participants for the focus group. Participants signed consent and confidentiality forms and agreed to an audio recording of the group interview.

Outcome Measures

A mixed-methods study was conducted using surveys and semi-structured focus group interviews to seek an understanding of the impact of the CSL activity on students’ self-efficacy and learning experience.

Quantitative Measures

Pre- and post-surveys were administered to assess students self-efficacy related to various workshop tasks. The pre-survey was administered during week 4 (before students completed the workshop rehearsal and community workshop), and the post-survey was administered during week 12 (after all students completed the entire assignment). The pre- and post-surveys included the same questions. Students were asked to rank their level of self-efficacy (confidence) on a 10-point Likert scale (1= not very confident to 10 = very confident) related to various workshop activities (Table 2).

Qualitative Measures

Students were invited to participate in the focus group to discuss their perceptions about the impact of the workshop CSL experience on their learning. Focus groups were conducted in December 2017 and January 2018, were 60 minutes in duration, and were led by a research assistant who moderated the discussion. A focus group guide, consisting of open-ended questions, was prepared a priori at the beginning of the study and used to facilitate the focus groups. However, opinions and thoughts raised by the participants that were not in the focus group guide were also pursued (Gill, Stewart, Treasure, & Chadwick, 2008). The participants were encouraged to bring forward any relevant information, while the moderator ensured that all questions were adequately discussed. The focus group questions were:

1. What did this opportunity add to or take away from your learning experience?
2. How did this experience influence your impression of behaviour change and communicating nutrition-related information to the public?
3. How did this experience influence your personal growth?
4. How did this experience impact your self-efficacy for disseminating nutrition and health-related information to the public?
5. How do you feel this opportunity contributed to your future career plan?
6. What impact do you think the community engagement workshops had on community members?

The focus group audio recordings were transcribed using a thematic-framework analysis to identify key themes arising from the responses to the open-ended questions (Attride, 2001). Two research assistants independently reviewed and coded the transcripts to identified key themes using deductive and inductive reasoning. NVivo software was used to verify the key themes that emerged from the focus groups (Version 11, QRS International, Burlington, MA, USA).

Additional Data Collection

For descriptive purposes, year of birth, gender and past enrollment in another course with a community-oriented project was collected by the research assistant. The topic and the location of each workshop were also recorded.
Data Analysis

The mean (SD) and frequency (percent) were computed for continuous and categorical data, respectively. The student’s t-test was used to explore the difference between mean self-efficacy scores from the pre- and post-surveys. A thematic-framework analysis was used for the responses to the open-ended questions (Attride, 2001). Quantitative analyses were performed with SPSS Version 25.0 (IBM Corporation, Chicago, IL). P-value ≤ 0.05 was considered significant.

Results

A total of 34/36 (94%) students agreed to participate in the study and completed both pre and post-surveys. Table 1 presents the descriptive characteristics of the participants. All nine workshops occurred during November 2017 and were conducted at various sites in Hamilton, Ontario, Canada. On average, self-efficacy increased by an average of 1.4 points from the pre- to post-survey. There were significant improvements in self-efficacy for all questions related to the workshop tasks (Table 2). Out of the 34 students who participated, seven students had previously completed a course with a community-oriented project. A separate analysis of survey scores for these participants revealed that post-survey self-efficacy ratings were not significantly different from pre-survey scores for all 6 questions (p>0.05) (data not shown).

Table 1. Descriptive characteristics of study participants (N=34)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years, mean (SD)</td>
<td>23 (1)</td>
</tr>
<tr>
<td>Female</td>
<td>28 (82)</td>
</tr>
<tr>
<td>Previously completed a course with a community-oriented project</td>
<td>7 (21)</td>
</tr>
<tr>
<td>Workshop location:</td>
<td></td>
</tr>
<tr>
<td>Sackville Hill Senior’s Centre</td>
<td>1 (11)</td>
</tr>
<tr>
<td>Physical Activity Centre of Excellence (PACE)</td>
<td>3 (33)</td>
</tr>
<tr>
<td>Ancaster Senior Achievement Centre (ASAC)</td>
<td>1 (11)</td>
</tr>
<tr>
<td>Hamilton City Housing Residence</td>
<td>4 (44)</td>
</tr>
<tr>
<td>Workshop topics:</td>
<td></td>
</tr>
<tr>
<td>Sarcopenia</td>
<td>2 (22)</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>1 (11)</td>
</tr>
<tr>
<td>Osteoarthritis</td>
<td>1 (11)</td>
</tr>
<tr>
<td>Alzheimer’s disease</td>
<td>1 (11)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>1 (11)</td>
</tr>
<tr>
<td>Type 2 diabetes</td>
<td>2 (22)</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>1 (11)</td>
</tr>
</tbody>
</table>

Note: values are n (%) unless otherwise indicated.
Table 2. Pre- and post-survey ratings of self-efficacy

<table>
<thead>
<tr>
<th>Survey questions</th>
<th>Self-efficacy rating</th>
<th>P-value</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I can effectively explain evidence-based nutrition information to a lay population.</td>
<td>6.2 (1.9)</td>
<td>7.7 (2.3)</td>
<td>0.007*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can explain the benefits and recommended guidelines for healthy eating to a lay population.</td>
<td>6.4 (1.8)</td>
<td>7.7 (2.2)</td>
<td>0.014*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can explain how healthy eating can help manage health conditions prevalent in older adults.</td>
<td>6.9 (1.6)</td>
<td>8.0 (2.2)</td>
<td>0.029*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can demonstrate strategies in eating healthy to a lay population.</td>
<td>6.7 (1.7)</td>
<td>7.8 (2.5)</td>
<td>0.033*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can help a lay person compose goals related to healthy eating.</td>
<td>6.7 (1.5)</td>
<td>7.8 (2.5)</td>
<td>0.039*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall, I can facilitate workshops related to evidence-based nutrition and healthy eating to a lay population.</td>
<td>6.2 (2.2)</td>
<td>8.1 (2.1)</td>
<td>&lt;0.001*</td>
<td></td>
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</tr>
</tbody>
</table>

Note: *denotes a significant difference between pre- and post-survey mean

Qualitative Results

Two focus groups were conducted with three and four participants each during December 2017 and January 2018, respectively. Regarding the impact of the workshops on the students’ learning experience, there were three themes that emerged from the focus groups:

1. Self-efficacy for science communication;
2. Enhancing the connection to the community;
3. Preparation for future careers.

These themes and select representative quotes are displayed in Table 3.

Table 3. Impact of community service learning experience on student learning: key themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Example quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Theme #1: Self-efficacy for science communication</strong></td>
<td>“I think it helped me because I never thought of myself as like, the source to teach other people, right? But doing the workshop, doing all the work, and seeing how engaged they were and they were looking to you for the knowledge and were interested in asking the questions, it kind of did make me feel a little bit better about my ability to do it, and teach, and be a reputable source to them.”</td>
</tr>
</tbody>
</table>
**Discussion**

This study demonstrated that a CSL activity, such as developing and delivering a nutrition workshop in the community, had a positive impact on students’ self-efficacy and enhanced the learning experience for students by improving science communication skills, creating a connection to community and preparing students for future careers. Overall, students felt more confident in their ability to effectively communicate evidence-based nutrition information to a lay population after completing this workshop assignment. Some students in our sample...

<table>
<thead>
<tr>
<th>Theme #2: Enhancing connection to the community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling of purpose</td>
</tr>
<tr>
<td>Fostered action-oriented conversations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme #3: Preparation for future careers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision to pursue careers in healthcare and higher education</td>
</tr>
<tr>
<td>Development of soft skills</td>
</tr>
</tbody>
</table>

| Communication forced enhanced learning | “It’s kind of like you have to know the content, you have to be able to answer the questions, it kind of made me learn it more, and remember it better.” |
| Public speaking decreased anxiety because of increased engagement and team work | “In the actual workshop when people are giving you eye contact and really taking notes and really asking you questions that you’re talking about, you’re like ‘wow I’m actually impacting their lives and they’re really taking in the information that I’m saying and that I worked hard on research’, and yes it helps with your confidence because people are actually listening.” |
had participated in community-oriented projects in previous courses, and there was no significant impact of completing the current assignment on their levels of self-efficacy related to various workshop tasks. This indicates that for students who have had experience with CSL-type assignments, the assignment objectives, specific activities in the assignment, or target audience may need to be modified in order to make the assignment more novel and to elicit an impact in more advanced students. On the other hand, our study was not equipped to adequately explore this question in the small subset of participants who had prior CSL experience, and thus more quantitative and qualitative research is needed to clarify the relationship.

CSL activities are an important aspect of a student’s undergraduate experience. They encourage communication of academic knowledge, translation of knowledge to a lay population resulting in social responsibility, and enhance personal and interpersonal development (Eyler, Giles, Stenson, & Gray, 2001). Similar to a large study of over 22,000 undergraduate students (Astin, Vogelgesang, Ikeda & Yee, 2000) and another meta-analysis involving over 11,000 students (Celio, Durlak & Dymnicki, 2011), our study showed that a CSL assignment significantly improved students’ self-efficacy related to various workshop tasks. Self-efficacy is an important outcome in education because students with high self-efficacy are more likely to have better problem solving skills (Larson, Piersel, Imao, & Allen, 1990), persist in math and science academic disciplines, are more likely to graduate from a program (Larson et al., 2015), pursue math and science-related careers (Luzzo, Hasper, Albert, Bibby & Martinelli, 1999), and have better academic performance (Museus & Hendel, 2005). As self-efficacy can be influenced by four main factors—mastery experiences, vicarious experiences, social persuasions, and physiological and psychological states (Bandura, 1997)—it is likely that the in-class workshop rehearsal played a role in improving students’ self-efficacy. During the rehearsal, students had the opportunity to practice their workshops in front of peers and receive positive and constructive feedback on workshop content, activities and body language. As students had the opportunity to observe their peers practicing, this may have enhanced self-efficacy through vicarious experiences. The positive feedback that students received from the professor, teaching assistant, peers and group members may have contributed to social persuasion and positive reinforcement. In addition, by having the opportunity to practice the workshop, students may have benefited from mastery experience. This may have also reduced the feelings of anxiety when public speaking, improving the students’ physiological and psychological states. Other studies have demonstrated that self-efficacy can be influenced by interventions or programs in the academic environment. For example, in a four week study, Luzzo, Hasper, Albert, Bibby & Martinelli (1999) showed that an intervention focused on vicarious and mastery experiences improved self-efficacy among undergraduate students compared to a control group who were not exposed to vicarious and mastery experiences. In another study, Wheeler & Wishusen (2014) showed that self-efficacy rating scores were higher for students who participated in a Biology Boot Camp with peer-to-peer interactions and learning communities (vicarious experiences), detailed feedback sessions (social persuasion) and review sessions (mastery experience). These findings support the notion that an improvement in self-efficacy in our study may be beneficial to the student, and may lead to more students pursuing careers in science, however, this should be explored in a longer-term study. In addition, it would be interesting to learn which aspect of the CSL assignment contributed most to self-efficacy improvement.

The focus group discussions revealed three key themes: self-efficacy for science communication, connection to the community and direction for future careers. Undergraduate students in science disciplines typically have few in-course opportunities to practice translating scientific information to a lay population, which is an essential skill for healthcare professionals (Woods, Pasold, Boateng, & Hense,
This assignment gave students the opportunity to practice science simplification and communication skills, which in turn forced enhanced learning, as students were responsible for understanding the content in order to communicate it in lay terms (Tucker & McCarthy, 2001). Students reported an increase in engagement and teamwork skills, and a decrease in public speaking anxiety, which aligns with the improvement in communication skills with a CSL activity (Tucker & McCarthy, 2001). Students also reported a greater sense of purpose, as they were able to give back to the community and transfer their knowledge about nutrition for the management and prevention of chronic disease. Engagement and positive interactions builds authentic partnerships between the students and the community members, resulting in a desire to continue to share knowledge to facilitate action-oriented conversations (Cashman & Seifer, 2008). Action-oriented conversations are partnerships between the community and campus partners to provide services to communities in need (McMaster University, 2016). This project provided a stronger sense of community for students, which is important for fostering community-campus connections and future community engagement work (Eyler et al., 2001). Lastly, this CSL activity contributed to preparation for future careers. Students found that this experience solidified their decisions to pursue careers in healthcare and provided opportunities to develop soft skills, such as organization and teamwork. Given the positive impact on self-efficacy, it is not surprising that students gained understanding and clarity around career goals, as Lent and colleagues proposed that the Social Cognitive Career Theory links self-efficacy to the pursuit of programs and careers in the science, technology, engineering and mathematics (STEM) fields (Lent, Brown & Hackett, 1994). This is a benefit to students, but also to the community, as exposing undergraduate students to public health through this CSL activity may help to ensure that students are able to contribute to developing healthy communities (Cashman & Seifer, 2008).

The limitations of our study should be considered. The population studied was a small cohort of a larger Life Science program. The generalizability of this CSL assignment to larger classes and students enrolled in different levels remains to be determined. One of the challenges to scaling-up this assignment is that the sources of self-efficacy, such as mastery experience, vicarious experience and social persuasion, may be lost in a larger class. Another limitation is that we did not have the power to conduct a more detailed sub-group analysis investigating why students who previously participated in community-oriented courses did not experience a significant increase in self-efficacy. Furthermore, we were not able to investigate the specific details such as content, objectives, deliverables, and timeline of the previous community-oriented projects, which may be an important consideration. Finally, our study did not include a control group, which makes it challenging to compare the impact of this CSL assignment to another more traditional assignment in a small class.

Conclusion

CSL activities enhance the undergraduate student learning experience and can positively impact self-efficacy, community values, and preparation for future careers. This pedagogical approach may be ideal for undergraduate science students aspiring to work in healthcare in the future, as this experience allowed students to practice teaching the lay public about nutrition and health and fostered a sense of responsibility towards helping others in the community.

References


**Biographies**

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Reflections on Experiential Learning in an Undergraduate Global Health Course: Bringing the Workplace into the Classroom

Obidimma Ezezika

Experiential learning has the potential to enhance students’ success and prepare them for the job market, including through class experiences that mirror experiences in the workforce. In this article, I lay out the process of incorporating experiential learning in a global health course. I have derived three key lessons from the design and implementation of this course: focus on one overarching goal, align learning activities with real world expectations, and help students understand connections between their projects and course content. These lessons provide insights to integrate experiential learning activities in the classroom.

There are ongoing discussions on how to make global health educational courses and programs meet the core requirements for public health and better prepare students through experiential learning (Friedman & Rigby, 2012; Hoffman & Silverberg, 2015; Kienzler & Fontanesi, 2017; Wilson et al., 2014). These discussions are fueled by the recent interest in effective global health education across North America (Drain et al., 2017; Lencucha & Mohindra, 2014; Withers et al., 2016). Experiential learning can be defined as learning from experience or learning by doing (Lewis & Williams, 1994), which involves action, reflection, abstraction, and application (Fry & Kolb, 1975; Itin, 1999). It can be an effective approach to teaching global health in a way that makes students feel connected to the field and provides students with a hands-on, meaningful, educational experience.

Experiential learning is relevant to global health education due to the inherent pragmatic nature of the subject (Hoffman & Silverberg, 2015). For example, global health is defined as “collaborative transnational research and action for promoting health for all” (Beaglehole & Bonita, 2010), and strives for “health equity among nations and for all people” as
its major objective (Koplan et al., 2009). The concept of global health is therefore connected to practice, and institutions and departments are motivated to provide their students with real-world skills due to the benefits that experiential learning can bring to global public health education (Hu & A, 2015; Baytor & Cabrera, 2014). Traditionally, global health programs have strived to integrate experiential learning activities into their programs through overseas placement for their students which generally result in positive outcomes (Cole et al., 2012; Panosian & Coates, 2006). However, there are risks and challenges associated with this kind of experiential learning. For example, students can become daunted by intense experiences and the high cost and planning associated with overseas travels and expenses (Parsi & List, 2008).

The general consensus is that global health programs and courses should integrate experiential learning activities. For example, a systematic review of undergraduate majors in global health by the Consortium of Universities for Global Health, 2016 (Drain et al., 2017), resulted in seven recommendations for the effective development and expansion of an undergraduate major in global health. One of these recommendations included facilitation and encouragement of experiential practicum and internship experiences. A few years before the review by the consortium, the Association of Schools of Public Health developed a global health competency model through a multistage modified Delphi process. Some of the competencies included in this model require experiential learning activities such as developing “context-specific implementation strategies for scaling up best-practice interventions” and “monitoring and evaluation frameworks to assess programs” (Ablah et al., 2014).

One of the ways to better prepare students for the workplace is by incorporating learning activities that are experiential in nature into classroom settings (Obenchain & Ives, 2006). Unfortunately, there is a gap in the literature on developing experiential learning activities in global health in traditional classroom settings.

In order to integrate experiential learning into my public health courses, I designed and implemented an upper year undergraduate course in global health based on Fink’s model, which incorporates activities from the workplace into the classroom. Fink’s model has also been used in courses in other disciplines (Fallahi et al., 2009; Levine et al. 2008). In this article, I share some of the insights gained from the course design and implementation, and demonstrate one way that experiential learning in a global health course can be integrated in traditional classroom settings to enhance student learning.

**Course Design Approach**

The design of the course followed four steps:

1. Developing the experiential learning goal
2. Designing learning outcomes based on the experiential learning goal
3. Aligning teaching and learning activities with experiential learning outcomes; and
4. Ensuring that assessment/feedback is based on experiential learning teaching/activities (Figure 1).
The main experiential goal of the course is to learn how to design, implement, and scale technological and social innovations to address global health challenges. Students who successfully complete this course should demonstrate the following experiential learning abilities:

1. Generate practical and sustainable ideas for improving global health outcomes
2. Pitch their technological and social innovation ideas for global health to potential investors and funders

Twenty-four third- and fourth-year students attended the course which ran for 12 weeks. Most of the students reported little or no prior knowledge about global health. I therefore designed and planned learning activities in the first two weeks of the course around an overview of the field. For the next eight weeks, students in groups of four worked to identify a specific global health problem and then designed a solution to solve it. During these eight weeks, the lectures were tailored around their projects in such a way that their projects were used as a lens for discussions around global health innovations for improving health outcomes. Students also had the opportunity to discuss their ideas with the class and to get feedback during lectures. We had experts representing global health funding agencies who presented guest lectures during these eight weeks where the students discussed their ideas and got feedback during the class and through separate meetings with these experts outside the classroom. The generation of ideas by each group was an iterative process taking into account feedback from the instructor, peers, and guest lecturers. Students had the opportunity through this feedback to continually refine, reformulate and test out their ideas. The refinement of their ideas culminated in the submission of a three-page proposal by the ninth week, just before the pitch to an external panel.

The project pitches to the expert panelists took place during the last three weeks of the course. Each group had five minutes to describe and quantify a global health problem and provide a solution. The goal was for each group to make a case as to why they should be given $100,000 to fund their innovation and how their solution would tackle a global health problem from their chosen angle and make a substantial impact in saving and improving lives. The panel had 25 minutes to ask the group questions and their responses were evaluated based on the parameters used by a number of global health funders, including Grand Challenges Canada, in evaluating global health interventions. The expert panel consisted of three
individuals who worked in global health and included an entrepreneur, a scientist and a global health consultant focused on emerging technologies in Sub-Saharan Africa and South Asia. Students were also given an opportunity to reflect on the experience. In sum, the approach to developing the course was to ensure that the learning activities, the course goal and the form of evaluation revolved as much as possible around experiential learning (Figure 2).

![Figure 2. The Fink Model with a focus on experiential learning (Fink, 2003)](image.png)

Reflections

Based on the design and implementation of this course, I derived three lessons which instructors and course designers can use to effectively integrate experiential learning activities into their courses. These lessons are drawn from my observations and reflections.

Lesson 1: Focus on One Overarching Goal

An experiential learning goal through project-based learning brings it all together. One of the most useful lessons learned was the idea of having just one learning goal that was experiential in nature and that facilitated the generation of learning activities and forms of evaluation. The development of effective course goals can serve as an important foundation that sets the trajectory for course design (Whetten, 2007). The main goal for this course was to teach students to design, implement and scale technological and social innovations to address global health challenges. This goal underpinned the design of the course, especially the project-based design aspect where students in groups worked on a global health innovation project which culminated in a proposal and a pitch at the end of the course similar to the Dragon’s Den format: a reality television program format in which entrepreneurs pitch their business ideas to a panel of venture capitalists in the hope of securing investment finance from them. Studies have shown the importance of such project-based learning in improving experiential learning, particularly in the field of engineering (Mazorra et al., 2016).

The learning outcomes derived from the main course goal were connected to experiential learning such as the ability for students to have reliably demonstrated the ability to generate practical and sustainable ideas for improving global health outcomes. Such learning outcomes help guide the project-based learning aspect of the course. By focusing on one goal, it was easy to see what content, learning activities and evaluation methods were needed to support this goal for the students. For example, for students to reliably generate practical and sustainable ideas for improving global health outcomes, I immersed the
Reflections on Experiential Learning

students into social, technological and financial barriers that may hinder technology development and adoption in resource-constrained settings. The immersion was done through relevant case studies, assigned readings, lectures, in-class activities and guest lectures. For a student to develop an understanding of the constraints surrounding the development and adoption of global health innovations, they have to first understand the overall process and environment of scaling technologies in resource-constrained settings. I used their projects as cases throughout the lecture to help coach them. The experiential goal makes the course easier to design and implement, particularly the project-based learning aspect of the course. There is evidence that project-based designs can help support experiential education in other health-related fields such as medical education (Maudsley & Strivens, 2000).

Lesson 2: Align Learning Activities with Real-World Expectations

Students truly want to see the relevance of their learning beyond the classroom. The alignment of learning activities with real-world expectations in a classroom setting can be difficult to achieve. However, the closer the learning activities are to future work environments, the more authentic and meaningful it will be for the students (Herrington & Oliver, 2000). A recent study showed this to be the case in the context of social work courses where creating similar stakes to the workplace through the involvement of service users and carers enables students to achieve overwhelmingly positive experiences which were implemented in their practice (Molyneux & Gillman, 2015).

Some of the ways the course attempts to mirror real world experiences and expectations is to work with the students in continually refining their projects throughout the course. This is achieved by providing the students an environment to create, test, fail, reflect and keep trying within the first ten weeks of the course until their idea is feasible and delivers a significant health impact. The idea of continuous refinement and feedback mirrors what is considered critical in the workplace. Secondly, the evaluation of their project is carried out by representatives of organizations who have funded millions of dollars worth of global health interventions and who employed some of the same evaluation parameters used in their organizations in assessing the student projects. Some of these parameters include potential health impact, potential to scale, sustainability, and level of integrated innovation. In other words, this was not just a final class presentation pitched to the instructor and students, but one pitched in a simulated real-life context, to actual assessors using the same benchmarks they use to appraise and fund global health projects.

Lastly, the course featured two experts from global health organizations who offered guest lectures earlier in the course and interacted with students during the ideation phase of their proposals, which provided students with the opportunity to receive feedback as they thought through their ideas. This allowed students to keep creating, testing, and reflecting on their ideas until they produced significant impact.

Lesson 3: Pitch Coaching is as Important as the Pitch

Preparing students for their pitches helps them make the connection between project and content learning. Mason and Arshed (2013) criticise the Dragon’s Den approach because of the strong focus on the proposal or pitch at the expense of the knowledge and skills needed to create or implement an idea and detachment from reality. This concern was taken into account in the course design, thus making the pitch a lens through which to teach the course. One unique feature of the course is that I, as the course instructor, have a stake in ensuring that the students present their best effort to the panelists. In the course of preparing students, there is ample opportunity for me to connect course content to their individual projects during lectures and in-class activities. In addition, students have an opportunity to refine their
ideas with their guest lecturers and with me in preparation for the pitch. I use a preparatory approach to prepare students for the pitch that involves them as leaders and innovators.

Preparing them for the pitch also encourages active learning and participation. The preparation involves working on refining their idea, which is evaluated by the instructor and the guest lecturers without any penalties for failure. This allows students to be creative and get adequate feedback on their project. It also involves preparing them for questions that the panelists might ask about their projects. It was interesting to see an improved engagement in the lectures as the course progressed because students had a deeper appreciation of how the course content was relevant to their projects.

Conclusion

There are questions as to how global health programs can best integrate practical experience opportunities for students (Asgary, Price, & Ripp, 2012; Asgary, 2013; Eaton, Redmond, & Bax, 2011; Nelson, Saltzman, & Lee, 2012) in light of the growing demand from students for more inclusion of experiential learning activities. The design and implementation of this course demonstrates how real-world global health issues and practice can be effectively taught through experiential learning activities. Through the course, students develop a nuanced understanding of the skills needed in generating, implementing and pitching technological and social innovations for global health. This course shows that it is possible to bring some of the activities from the workplace into a typical classroom setting through simple experiential learning activities in conjunction with external experts.

References


Reflections on Experiential Learning


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Biography

Dr. Ezezika is an Assistant Professor, Teaching Stream, at the University of Toronto. He is an advocate for interdisciplinary teaching and learning, and his research interests lie at the nexus of implementation science and global health.
Lived Experiences of Online and Experiential Learning Programs in Four Undergraduate Professional Programs

Kathy Snow, Leslie Wardley, Lorraine Carter, Pat Maher

This paper presents the observations and reflections of four faculty members who developed experiential online learning pathways for students in diverse professional programs. In relation to programmatic expectations of Nursing, Education and Business, the challenges and opportunities for experiential online learning design are discussed. In addition, the scaffolding and development of online learning within an undergraduate degree, which ladders into professional programming, are presented. Using Kolb’s Experiential Model of Learning design to structure the discussion, the faculty members reflect on the success of implementation from their various positions as leaders and instructors of programs. They seek to answer questions for themselves and their faculties in relation to the feasibility of designing experiential learning opportunities online and how this can contribute to deepening professional practice. The paper closes with implications for practice for other post-secondary educators who may be considering experiential online learning.

Notre article présente les observations et les réflexions de quatre enseignants qui ont mis au point des parcours d’apprentissage expérientiel en ligne pour des étudiants inscrits dans divers programmes professionnels. Nous discutons des difficultés et des possibilités de l’apprentissage expérientiel en ligne par rapport aux attentes des programmes de soins infirmiers, d’éducation et de commerce. De plus, nous présentons la construction et l’élaboration de l’apprentissage en ligne dans un programme de premier cycle universitaire qui conduit à l’élaboration de programmes professionnels. En utilisant le modèle expérientiel de conception de l’apprentissage de Kolb pour structurer la discussion, les enseignants réfléchissent aux réussites dans la mise en œuvre de leurs différentes fonctions de chefs de programme et d’instructeurs. Ils se posent des questions – pour leur propre compte et pour les enseignants – sur la faisabilité de la conception d’apprentissages expérientiels en ligne et se demandent comment cela peut contribuer au perfectionnement de leur pratique professionnelle. Nous nous penchons enfin sur les conséquences de notre étude pour la pratique d’autres éducateurs, au niveau postsecondaire, qui envisagent peut-être l’apprentissage expérientiel en ligne.
**Experiential education** is a pedagogical approach that encourages collective and personal critical reflection and development (Vince & Reynolds, 2007). In the literature that documents the learning needs of students in professional programs in post-secondary contexts, critical reflection and lifelong learning emerge as essential elements in the development and growth of students (Holman, Smith, & Welch, 2009). Although one might expect to see many examples of experiential education in professional programs, the practical realities of experiential education in higher education are challenging, and faculty interested in developing experiential learning opportunities for students must negotiate institutional policies, external regulatory bodies, and, at times, even concerns about legitimacy within their departments.

While extensive logistical and coordination practices, coupled with quality assurance measures, have generally enabled universities to meet these challenges largely through internships and practical field experiences, students may be placed far from their home institutions, a situation that limits their opportunities to reflect on experiences with colleagues. Enablement of sharing among students has, to date, been a particular challenge of experiential learning.

Online education in professional programs is changing the higher education landscape. Online education has introduced both opportunity for deepening experiential learning, as well as challenges for legitimizing its use in programs that demand extensive experience. In an exploration of the opportunities and challenges of supporting experiential learning via technology, we have reflected on our practices in curriculum design and delivery in relation to online experiential opportunities in four disciplinary perspectives: nursing, education, business and community studies. The latter program is frequently completed prior to social work and policing. Our reflection is grounded in the question: How can the learning practices associated with experiential learning in professional programs be (re)created in an online environment? While we acknowledge the limitations of online education, we propose that experiential learning in online professional programs can be accomplished with integrity. Moreover, such learning supports professionals who must work in today’s technology-supported and information-saturated workplaces.

**A Brief Review of Literature**

This paper brings together the following challenging areas for many educators:

1. Understanding and designing experiential education within the confines of higher education;
2. The limitations of learning design for professional programs; and
3. The role of online learning within professional programs and in relation to experiential education.

We have positioned our exploration of online experiential education using various understandings, described below.

**Experiential Education Framework**

Experiential education as a teaching and learning approach is undergoing a revival (Penger, Znidarsic & Dimovski, 2011). The term itself has broad meaning and is often misunderstood or misapplied through reductionist thinking to any learning that involves activity. For example, an apprenticeship may or may not be a formal experiential learning event, depending on how it is structured (Reynolds, 1999). The key component of experiential education documented in the literature is action on the part of the student that promotes learning through reflection. Notably, it is reflection that is often missing from programs claiming to be experiential in nature. Dewey (1933) noted that experience itself is not always educative. Instead, in order to appreciate the significance of the learning experience, reflection...
Online and Experiential Learning Programs

must occur. First introduced by Kolb and Fry (1975), the term experiential learning refers to a set of techniques that provide individuals with encounters from which they can learn and develop. Experiential learning theory based on Kolb (1984) suggests that it is a “process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (p. 41). Kolb further proposed that experiential learning is experienced as a cycle of four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. While there are other understandings of experiential learning in the literature and in practice, Kolb’s work has stood the test of time and is generally accepted as the most influential theory of experiential learning (Kayes, 2002).

Professional Programs

Professional programs in higher education, such as nursing, social work, education, and business, face specific challenges in curriculum design (Young, 2018). Like other undergraduate and graduate programs, faculty must teach large amounts of content in what can feel like too short of a term, as well as teach problem solving, critical thinking, and discipline-related skills. At the same time, professional programs involve higher stakes than other undergraduate programs because students must acquire specific skills before graduation. Examples include foundational surgery skills for medical students, intravenous insertions for nursing students, and safe management of groups of active young people for students in education. Graduates are expected to emerge from their programs as professionals in their respective fields, with values and skills including but not limited to ethics, communication, and risk management. In an examination of medical school graduates over a ten-year period, unprofessional behaviour was noted as the reason for 95% of all disciplinary actions involving recent graduates (Papadakis et al., 2004). Although the importance of these so-called “softer” skills is well recognized in the curricula of professional programs, instruction related to and assessment of these skills remain problematic (Knopp, 2006).

Some students in professional programs may not fit the stereotype of the traditional learner who enters university directly from high school. Many students in professional programs return to school after reaching a plateau in their careers while others may be pursuing a second degree (Courtney, 2018; Sloane-Selase & Kopps, 2013). These factors add to the challenges of experiential learning. For example, according to Ewert and Sibthorp (2009), within experiential education, there is a wide range of issues which can influence evidence-based learning outcomes, including:

1. Precursor variables existing before the experience (e.g., prior knowledge, demographics, motivations and expectations)

2. Concomitant variables occurring during the experience (e.g., group characteristics, situational impacts and conflicting demands); and

3. Post-experience variables occurring after the experience (e.g., post experience exhilaration and response shift bias).

Returning adult learners are affected by all three kinds of variables, but the category of precursor variables may be especially influential when there is substantive life and work experience before the student enrolls in a professional program.

A further distinguishing feature of a professional program is its reputation, which depends principally on how well its graduates perform, either on certifying exams and/or in job placements. Some students, for example, might enter a program as top candidates because of their ability to prepare for tests and formal assessments, but they may not have or be able to demonstrate the professional skills associated with the practice field. In addition to acquiring
knowledge and professional competencies, students must develop an internalized proactive commitment to professional development. Through judicious professional development, the individual progresses towards excellence that is reflective of the discipline and furthers the activities of the discipline (Hamilton, 2014).

Online Learning and Experiential Education

Online collaborative activities enabled by synchronous and asynchronous technologies have been shown to support the development of competence in professional communication (Salzman et al., 2016), independent learning (Broadbent & Poon, 2015), and transcultural competencies (Mikkonen et al., 2016). These capacities underscore the possible value of online tools and approaches in relation to experiential learning.

Although the benefits of online tools in the support of experiential learning are emerging in the literature, there is some disagreement about how much technology can and should be used in professional programs. For example, at present, a fully online teacher education program cannot exist in Canada. In part, this is due to the complex network of regulatory bodies that govern teacher education. It is also due to the idea that teacher education cannot be effectively accomplished in an online setting since the training of teachers is largely seen to be experiential in nature (Jaggars & Bailey, 2010). The same views are held regarding other professional programs such as nursing and, to some extent, business. Conversely, in discussing engineering and medical training, Bates (2009) emphasizes the access to education that online education affords for students in remote and rural areas and suggests that learning centres can serve as settings for the hands-on learning critical to professional competency.

In summary, experiential education offers potential to strengthen professional competencies while online learning has recently emerged as a valuable means of developing these competencies. However, the complexities of organizing and delivering experiential opportunities in general, and in online settings in particular, are significant as are the legitimacy and oversight questions posed by various external regulatory bodies.

Four Iterations of Online Experiential Learning in Professional Programs

Over the next few pages, we will present our perspectives on four undergraduate-level professional programs that involve experiential learning to varying degrees. Our perspectives are influenced by our lived experiences and responsibilities within our small teaching-intensive universities in Nova Scotia and Ontario. The first scenario is narrated from an administrative and programmatic perspective, namely, that of a Director of Nursing. The subsequent reflections explore courses in education, business, and community studies and are narrated from the faculty perspective.

Scenario 1: Nursing Education, RPN to BScN Blended Learning Program

During my time as Director of Nursing at the Institution, I was responsible for three different undergraduate nursing programs. The program described here is the Registered Practical Nurse (RPN) to Bachelor of Science in Nursing (BScN) degree program. Through this program, Registered Practical Nurses (RPNs) study part-time in pursuit of a Bachelor of Science in Nursing (BScN). The majority of learners in the program are working adult learners who are balancing work, family, community, and other responsibilities.

A number of theoretical tenets and contemporary realities of 21st century nursing are important to this discussion. The first is that learning about nursing at
the baccalaureate level requires the nurse-learner to be a skilled critical thinker in the clinical setting (College of Nurses of Ontario, 2014). Additionally, the choices that nurses make at the point of care are increasingly based on the use of information technology (Strudwick, 2015). Excellence in critical thinking and online information gathering, synthesis, and analytic skills are core to the work of the registered nurse.

The RPN to BScN program discussed here is a blended learning program. Theory courses are delivered online and clinical (experiential) courses occur in clinical practice settings. While a person might surmise that there is little or no online activity in the clinical courses, this is not the case. Each clinical course includes an online course site which, in addition to housing resources, serves as an environment where students are required to reflect and think critically on their learning with their clinical instructor and other students. This work happens principally through writing. Tools such as discussion boards, blogs, and course-specific email are central to these courses.

The literature on the connections between reflection, critical thinking, writing, and nursing education is growing. There is extensive research on the relationships between thinking and writing as it pertains to nursing education. Belinski (2002) described the “writing to learn paradigm,” with its emphasis on “personal transformation,” as an important tool in fostering critical thought and concept clarification. The 1980s and 1990s saw a distinct shift in nursing practice from a largely task-oriented to a more holistic model (Carter 2008a, 2008b; Ironside, 2004). Given this shift, today’s nurses and nursing students, including those in the RPN to BScN program, need many formal and informal occasions to reflect and think critically. The blend of clinical learning with carefully designed online writing activities is a powerful combination. Such activities not only deepen the nursing student’s thinking processes in the clinical setting, but they also foster engagement with peers (Killam, & Carter, 2010) and structured thinking about practice (Carter, 2008a, 2008b).

The RPN to BScN blended learning program is built on a foundation of evidence-based knowledge and the principles and practices of experiential learning. For example, case studies and problem-based learning activities in the nurse-learner’s theory courses serve as a form of experiential learning. Alternately, the clinical or experiential courses are enhanced through online activities and assignments that require critical thinking through reflection. Thus, in both kinds of courses, the online learning setting facilitates the key elements of experiential learning: interaction with content and ideas; feedback from other students, clinical instructors, and nursing faculty; reflection and critical thinking; and understanding and meaning by individual nurse-learners.

Nurse-learners consider the literature on experiential learning and understanding and creating meaning to be important. For example, Strudwick (2015) describes how nurses transition to the use of technology as well as how they value experiential learning. Patterson and Snelgrove-Clarke (2016) explore how journaling can enable personal learning in the online setting. Nurse-learners can track and monitor their own progress, and, thus, create personally significant learning environments. Literature on online education also shows that concept-based learning supports deep learning (Nielsen, 2016).

Sound pedagogical and design choices are the best predictors of meaningful experiential learning in nursing (Carter, Salyers, Myers, Hipfner, Hoffart, MacLean, White, Matus, Forssman, & Barrett, 2014). In the RPN to BScN blended learning program, methodologies such as the Introduce, Connect, Analyze, Reflect and Extend (ICARE) model (Salyers, & Carter, 2010) and the Conscious Curriculum Design and Development (CCDD) model (Beattie, & Carter, 2018) optimize experiential learning, lead to significant learning experiences for
students (Fink, 2013), and ensure a connected curriculum (Fung, 2017).

Scenario 2: Teacher Education, Elementary Education, Science Methods

This scenario is based on a course design I developed and launched for students in an elementary teacher education science methods course composed of two cohorts: a campus-based cohort of 20 students and a second First Nations cohort located off campus consisting of students from four First Nations communities in Nova Scotia. The blended learning design of the course was selected to enable local in-school experience for the First Nations students, some of whom were working as teacher assistants and all of whom were living in the community. A secondary goal of the learning design was to connect campus and community students in order to build relationships and transcultural understandings between the cohorts.

The course was divided into four parts. Each part began with a face-to-face meeting during which the objectives for the section were presented, and a debrief or reflection on the previous section. In the first face-to-face meeting, time was used for introductions, team building, and sharing of administrative information.

The students then moved into the online and practical aspects of the course. Students completed their activities online from their homes, often integrating learning directly into their current working contexts to achieve the educational objectives outlined at the beginning of the cycle. The typical learning cycle followed the format outlined in Table 1.

I supported students in their reflection by asking questions and adding supportive comments through the online platform. Students’ practice of reflection was deepened by my support. I was also available by email and in a face-to-face setting for conversations that students did not want to share publicly. I was especially struck by the level of discussion and questions about the use of media in the course. Students created videos of their teaching and learning environments, which allowed many non-First Nations students to see the homes and communities of First Nations students for the first time. Transcultural competency for students in both cohorts was increased through sharing sessions based on the students’ independent lessons. Formal and professional online communication, a critical element of development for novice teachers, was modeled and supported through asynchronous

Table 1. Typical learning cycle, teacher education, science

<table>
<thead>
<tr>
<th>Reflective Observation</th>
<th>Abstract Conceptualization</th>
<th>Active Experimentation</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first lesson of each unit was a face-to-face lesson in which the previous experience was deconstructed and explored and a new cycle established.</td>
<td>Asynchronous online activities were used to engage with theory related to learning objectives.</td>
<td>Each lesson design was unique to the student and specific community context.</td>
<td>Students did online video presentations of their lessons and received feedback from their classmates.</td>
</tr>
</tbody>
</table>
discussions. Such modeling would not have occurred in a fully face-to-face offering. Finally, resource preparation, the creation of materials, and the requirement that students record their lessons supported objectives pertaining to technological development and resource development. The students appeared to consider their public sharing of materials to be a ‘higher stakes’ activity than an assignment submitted only to the instructor. Though potentially stressful, this allowed a more realistic experience as novice teachers often feel trepidation around public speaking upon encountering their first full classroom of students.

Scenario 3: Business, Occupational Health and Safety

The Association to Advance Collegiate Schools of Business International (AACSB) has become an accrediting agency for degree programs in business that enhances the reputation of business schools. Although the business school discussed in this scenario is not AACSB accredited, business programs across Canada including the one discussed here are influenced by its guidelines (Elliott, 2013) which recommend experiential learning as a means of bridging academic competencies with workplace needs (Burch, Heller, & Freed, 2014).

In this scenario, I taught an Occupational Health and Safety course as a fully online course with support from the university’s Centre for Teaching and Learning. The degree program in which this course is housed offers students the flexibility to complete their studies in three ways: online, on-site, or as a combination of the two in a hybrid format.

As a faculty member, I have taught multiple sections of this online course since its inception and made various modifications based on student feedback and my own observations. The course offering under discussion involved 40 students. Students came from diverse disciplinary backgrounds including business (55%), nursing (23%), and the arts and sciences (22%).

The principal goal of the course is the development of students’ knowledge through readings, case studies, a research assignment, and tests. This knowledge is deepened through interactions with classmates, reflective blogging, and promotional videos focused on occupational health and safety, and created collaboratively with community members.

Blog entries were completed during three specific time periods corresponding with the course’s modular framework. Students were responsible for creating a blog that offered background research and presented informed insights and reflections on a topic related to the content of a designated module. They were also asked to challenge or elaborate on the views of others in their blog entries. In short, students were asked to complete activities off-line and then share their experiences with the other members of the class online.

As in the course that focused on teacher education (discussed above), each unit followed a specific learning cycle which is presented in Table 2.
Table 2. Typical learning cycle, occupational health and safety

<table>
<thead>
<tr>
<th>Reflective Observation</th>
<th>Abstract Conceptualization</th>
<th>Active Experimentation</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive learning based on content of module</td>
<td>Research paper</td>
<td>Discussion posts, blog entries &amp; case studies</td>
<td>Community-based marketing outreach message</td>
</tr>
<tr>
<td>Simulations and videos posted by professor with questions to address in blogs</td>
<td>Conceptualizing workforce-relevant knowledge related to the group topic</td>
<td>Reflecting, applying knowledge, and evaluating peers</td>
<td>Content presented online; three-tiered monitoring and measurement systems (peers, professor, and community members)</td>
</tr>
</tbody>
</table>

As noted earlier, measuring the effectiveness of experiential education can be challenging because of diverse factors including participants’ backgrounds, program and course designs (online or on-site designs), and individual program experiences (Ewert, & Sibthorp, 2009). While I recognize the impact of these and other variables in terms of measuring experiential learning, these confounding variables actually appeared to improve the experiential learning experience for students and community members.

First, the asynchronous nature of the course enabled students from various educational and work backgrounds to enroll in it. This diversity enhanced the learning environment since working professionals from across the country were able to share their workplace experiences and expertise. In addition, some students who could not offer knowledge contributed in other ways, such as their skill with technology and social media platforms. Community members gained access to students who would normally be inaccessible, while the students developed expertise in coordinating workplace health promotion programs in technology-supported ways. This skill is required in distributed organizations and contexts involving remote locations and limited physical contact.

Second, online postings displayed significant depth and breadth because students could control when they responded to others’ entries. Often, the blog entries blended theory with personal reflections and on-the-job experiences. Frequently, students reflected and constructed their knowledge before engaging in discussion. This strategy enabled confidence building and assessment of the validity of postings before they were shared. It also meant that students’ work displayed depth as they incorporated relevant links to websites and provided online support materials. Some discussion threads started at the beginning of the course were incorporated throughout the course and modified as students acquired new knowledge.

The group media outreach project provided a further level of experiential learning with students taking their course-based learning into practice within the community. Often, what they thought would work in theory did not work in practice and required working collaboratively with others. This collaboration process with community members represented another level of reflective experience as students shared their lessons in their groups and blog entries.

In the course, the online environment appeared to enhance students’ reflective practices. Students used theoretically-based research and case studies that
Online and Experiential Learning Programs

supported their problem solving and critical thinking skills. In turn, they incorporated these skills into experiential activities with other students and community members.

Scenario 4: Community Studies, Work Placement Courses

This scenario is based on my experiences in 2015 revising two work placement courses in a degree program focused on community. While community studies is not regarded to be a professional program in itself, it has a longstanding relationship with two fields of professional practice: policing and social work. Composed of 30 credits of study, the Bachelor of Arts Community Studies (BACS) degree at the Institution often leads to or follows a student’s study in one of these two areas. In the case of policing, a BACS degree is often a post-practice degree undertaken when a police officer strives to move up the management ranks. For a full discussion of the BACS degree and its scaffolding of courses, see Connell and Seville (2007), Maher and Root (2015a; 2015b), and Callary, Maher, Root, and Ryan (2018).

Experiential learning is one of the key pedagogical approaches used in this program. The two work placement courses that I will discuss follow a full year introductory course focused on learning how to learn. These placement courses have been a part of the program since its inception in 1975. The primary purpose of the courses is the following: “To give students the opportunity to develop skills and to be made aware of how problems are analyzed and solved in the real world” (Morgan, 2004, p. 72). The courses have also played a role in positioning the degree within the community and establishing its identity as an applied degree. Building on their long standing, the courses experienced substantive change in 2015: they went fully online.

The syllabus for one of the two courses states that the course is “designed to provide you with the opportunity for meaningful career exploration and the possibility of gaining skills in a field of interest.... [it] provides an opportunity to experience potential careers while still working on other classes towards your degree and initiating your thoughts on the professional life choices ahead.” Thus, the course is different from a co-op in that it is completed simultaneously with other courses. In the second work placement course, students are provided an opportunity to solidify their chosen professional path through a similar placement experience. The purpose of this course is three-fold:

1. To provide practical work experience;
2. To enable the student to test his or her potential career choice; and
3. To provide opportunities for the student to reflectively link theory and practice.

The courses are experiential in nature with assignments that reflect the four components associated with experiential learning. As in the earlier scenarios, each unit followed a specific learning cycle which is presented in Table 3.
Table 3. Typical learning cycle, work placement courses

<table>
<thead>
<tr>
<th>Reflective Observation</th>
<th>Abstract Conceptualization</th>
<th>Active Experimentation</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion posts and a final reflective essay for each course</td>
<td>Developing a career plan (COMS 2101); information interview (COMS 3101)</td>
<td>Discussion posts, journal summaries, &amp; self/supervisor evaluations</td>
<td>Placements with a community partner (100 hours for COMS 2101, 100 hours for COMS 3101)</td>
</tr>
</tbody>
</table>

The purpose of the 2015 course re-design was to foster community and enable flexibility. Prior to 2014, the courses had been running for at least 10 years without significant change. Although students were connected with a faculty member or student placement officer, they were largely independent learners. They did not belong to a cohort through which they could discuss similar issues or challenges. Additionally, workload was significant for the faculty and placement officer. Because of these circumstances, the decision was made in 2014 that the students in the courses would join a class with in-person lecture hours which would bring them together. This approach, however, proved to be challenging because of the growing diversity of the students’ placements across Canada and internationally.

A year later, transitioning the courses to a fully online format solved the challenges of flexibility and geographic diversity. That year, 72 students started their placement courses. While they completed their placements in different physical locations, they connected as a group and learned from each other through the online setting. Results have been highly favourable: while faculty are responsible for two courses under the new model, students operate as a single cohort. Students are enrolled into the courses twice a year (September and May) and provided two semesters to complete each course.

In summary, the transition of the course to an online setting has enabled the sharing of experiences and a sense of community among the students. It has also provided significant flexibility. Currently, students discuss units together, find placements together, turn placements into real work opportunities post-degree, and realize that they are part of a likeminded community.

Discussion of Learning Design, Online Experiential Learning, and Implications for Students

Although the observations offered in this paper are limited to the reflections of a single administrator and three faculty members on learning design and the impacts these designs have had on students, our experiences have generated a number of themes worth consideration by other educators navigating the realities of online professional programs and experiential education. Five themes are discussed below.

Technology Skills

An obvious benefit for students in professional programs who study online is that they develop technology and information competencies in line with the requirements of their future professions. For instance, in the courses described here, future teachers and business professionals were asked to develop and share multimedia assets including videos and interactive online presentations, as well as compose email and message board responses.
Working with technology is critical in both of these professions. Such skill is equally important in nursing where nurses are required to consult and critique information they gather through diverse technology-enabled means and make evidence-informed decisions at the point of care. When the development of technology skills is integrated with learning and serves as a means to an end, students’ acquisition of technological skills is reported to be more effective than targeted teaching of the same skills (Sung, Chang, & Liu, 2016).

Professional Communication Skills

Professional communication skills are among the most critical skills that students can develop in the online learning setting (Belinski, 2002). In all of the disciplines represented in this paper, working professionals are required to communicate with assorted internal stakeholders and the wider community on a daily basis. Hence, refining these skills while a person is a student is important. When students do not interact physically, professionalism in their communication may be greater than it would be in a face-to-face context. In the online setting, students may experience greater growth as communicators in that they do not have the same access to an instructor to facilitate exchanges.

Connections with the Professional Community and the University Campus

In each of the scenarios described above—nursing, education, business, and community studies—students’ experiential learning opportunities involved geographical distance from the university campus. Students on placement can serve as ambassadors for their universities and programs as well as conduits of information back to their main campuses through the tools of online learning. The online aspects of their courses enable the construction of community with peers and instructors.

Self-Directed Learning Skills

Instructors who provide their students with online asynchronous environments, punctuated with critical deadlines, create space for students to develop time management and self-directed learning skills. While nursing students are always busy and often stressed when they are in clinical settings, the requirements to make contributions to a discussion board and to submit assignments according to pre-determined deadlines keep them in touch with their peers, instructors, and the program as a whole. In the case of the education students, the gap between the face-to-face sessions challenges them to participate in teaching practice and to record and share their experiences. This kind of expectation prompts students to engage in self-directed learning and parallels what will be expected of them as practitioners. At the same time, because skilled instructors pace their assignments and activities, students learn how to be reflective thinkers over time and before they are faced with the hectic nature of professional practice.

Connections Between Theory and Practice

Experiential education has long been recognized for bringing theory and practice together and deepening learning. We would also suggest that the inclusion of online components reflects realistic practice. Using an online format, students are able to experience their learning in situ and share it with others through recordings, re-telling of experiences, informal and informal reflective activities, and carefully designed assignments. The online medium enables students to leave the boundaries of the campus and experience real practice in the field.

Transcultural competencies

Considering the cultural cohorts described in the education scenario, the opportunity to provide a safe space for each group to be grounded and to come together for a sharing of culture and experience was
especially meaningful. Through separate and shared reflections, the students experienced a greater depth of cultural understanding than they would have otherwise.

The online elements in the highlighted nursing program also facilitate cultural understandings including how health services and issues of access differ across the province of Ontario. The online environment connects registered practical nurses with many years of experience and new grads. Through this coming together over physical distance and through technology, the nursing students learn about the cultural and professional practices of nursing in diverse settings and at different points on the novice to expert spectrum.

Such development is critical in fields such as education and nursing where in-depth understanding of diversity is necessary in daily practice. The chance to experience others’ perspectives, lifestyles, and varied ways of being in the world and to reflect on all of this in the safety of a supportive online learning setting should not be underestimated.

Final Thoughts

Although we do not recommend online learning as the only solution to the desire for experiential learning in professional programs, it does hold considerable promise. Through thoughtful design and delivery of an online experience, the online setting can play an important role in skills development and fostering an authentic learning experience. It can also encourage community-building since learners can be in different locales but still connect, reflect, and share. Further, online settings can enable the growth of communication, media, and information gathering skills all of which are important in a person’s professional life. Finally, the advantages of critical reflection on real life experiences through judicious written and real time expression are well established in the literature.

References


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Development of a Rubric to Assess Lifelong Learning in Work-Integrated Learning Reflection Assignments

Robert Sproule, David Drewery, T. Judene Pretti

Lifelong learning has emerged as an important learning outcome across the Canadian post-secondary education system. However, assessments of lifelong learning have been limited to students’ self-reports, particularly questionnaires. In programs that offer work-integrated learning experiences, students’ reflections may provide a window to further developing this outcome. The purpose of this study was to develop a rubric for assessing lifelong learning in this context. A review of the literature was used to develop both a rubric and self-assessment instrument for measuring lifelong learning. Students in an accounting and financial management co-op program at the University of Waterloo (n = 32) completed the self-assessment and the rubric was applied to two reflection assignments. Staff feedback and correlational analyses provide initial support for the rubric as a useful tool for assessing lifelong learning. Implications for educators especially in work-integrated learning contexts are addressed.

Keywords: lifelong learning, reflection, rubric, work-integrated learning

L’apprentissage permanent est devenu un objectif d’apprentissage important dans l’ensemble du système d’éducation postsecondaire canadien. Toutefois, l’évaluation de l’apprentissage permanent s’est limitée jusqu’à maintenant aux témoignages des étudiants, au moyen de questionnaires tout particulièrement. Dans les programmes qui offrent des expériences d’apprentissage intégrées au milieu du travail, les réflexions des étudiants peuvent représenter une occasion de progrès dans ce domaine. L’objectif de notre étude était de concevoir une grille d’évaluation permettant d’évaluer l’apprentissage permanent dans un tel contexte. En nous fondant sur un examen des études existantes, nous avons élaboré cette grille ainsi qu’un outil d’auto-évaluation afin d’évaluer l’apprentissage permanent. Des étudiants inscrits dans un programme d’alternance travail-études en comptabilité et gestion financière de l’Université de Waterloo (n = 32) ont complété l’auto-évaluation et nous avons appliqué la grille d’évaluation à deux devoirs d’ordre réflexif. Les commentaires du personnel et l’analyse des corrélations semblent de prime abord indiquer que la grille d’évaluation est un outil utile pour évaluer l’apprentissage permanent. Nous discutons des conséquences de notre étude pour les éducateurs, tout spécialement dans le contexte de l’apprentissage intégré au milieu de travail.

Mots clés : apprentissage permanent, réflexion, grille d’évaluation, apprentissage intégré au milieu de travail
When we think of concepts that have a positive connotation within education, lifelong learning is one of the first that comes to mind. Lifelong learning has been described as a journey in which people develop their skills and knowledge throughout their lives (Aspin & Chapman, 2001; Hojat, Veloski, Nasca, Erdmann, & Gonnella, 2006). Today’s world demands that individuals learn not just through formal education during their youth but during all stages of life and across all domains (Billett & Choy, 2011). Those who subscribe to this perspective argue that a central aim for post-secondary education is to develop students into lifelong learners (Candy, 1991). The School of Accounting and Finance (SAF) at the University of Waterloo recently acknowledged the importance of lifelong learning. SAF alumni have consistently identified lifelong learning as an essential graduate attribute. An emergent goal within SAF has been to better understand how to develop students into lifelong learners and how to assess this development.

A Lifelong Learning Mindset

A mindset is a collection of beliefs and attitudes with which a person approaches a situation. Dweck (2006) popularized the notion of a mindset in her work regarding growth and fixed mindsets. We acknowledge this work and borrow the term mindset to describe in more detail the characteristics of lifelong learners. A review of the literature suggests that lifelong learners are defined by their lifelong learning mindset. This mindset is a collection of beliefs and attitudes that amount to a self-directed, persistent, and intrinsically motivated drive for new knowledge. Although definitions of a lifelong learning mindset vary, several core concepts best articulate the features of this mindset. These include epistemic curiosity, proactivity, transfer of knowledge, reflection, and resilience.

Epistemic Curiosity and Proactivity

Epistemic curiosity refers to a drive for learning new things both out of interest for those things and to rectify the tension of not knowing (Berlyne, 1960; Litman, 2008). Authors argue that curiosity about things not yet learned is central to a lifelong pursuit of knowledge (Deakin Crick, Broadfoot, & Claxton, 2004). It acts as a force underlying the things that people do to reach deeper understanding of things, such as persisting through challenges and proactively seeking information. Proactivity, or taking initiative in the learning process, is a second aspect which is common across the lifelong learning literature. Rather than wait for instruction, lifelong learners actively develop a course of action (Candy, 1991). Often this includes setting goals (Kirby, Knapper, Lamon, & Egnatoff, 2010) and determining where to find information about the topic at hand (Wielkiewicz & Meuwissen, 2014). Both curiosity and proactivity describe an intrinsic motivation to learn new things in a self-directed way. Curiosity is the motivational state or trait underlying the self-regulated and intentional (i.e., proactive) search for knowledge (Kashdan, Rose, & Fincham, 2004).

Transfer of Knowledge and Reflection

Lifelong learners are also described as having a strategic awareness regarding their learning styles and opportunities (e.g., Deakin Crick et al., 2004). Two aspects of a lifelong learning mindset seem most central to this. The first is the transfer of knowledge, which refers to the application of knowledge already acquired to current learning tasks. It has been suggested that lifelong learning is not only lifelong but also lifewide (Jarvis, 2007). That is, lifelong learning is a pursuit that spans across contexts. Lifelong learners make inferences and assumptions.
based on what they already know and experiment with new conditions (Candy, Crebert, & O'Leary, 1994; Knapper & Cropley, 2000). Their approach is to make connections across contexts and to apply what they learned in other contexts to their present challenge. The second aspect is that of reflection. Reflection in general is understood as the process of thinking about thinking (e.g., Mezirow, 1991). Lifelong learners monitor what works well and what does not and they reach a level of self-awareness that is believed to be consistent with a deep learning style (Deakin Crick et al., 2004). They reflect on their learning experiences to identify issues as they also plan toward setting new goals for overcoming those issues. In other words, lifelong learners think critically about their experiences in a way that guides their future approaches to learning. Both transfer of knowledge and reflection are core aspects of a lifelong learning mindset. Together they characterize the lifelong learning mindset as one that is critical, intentional, and self-aware.

Resilience

The lifelong learning mindset features a tendency to persist through learning challenges, and so it is resilient. By contrast, it is difficult to imagine a lifelong quest for knowledge while harbouring a fragile mindset that gives up on learning difficult things (Deakin Crick et al., 2004). As such, the concept of resilience and in particular academic resilience, or a strength to cope with challenges in learning new things (Martin & Marsh, 2006), is relevant. Authors in the lifelong learning literature commonly refer to adaptation to new demands as being a cornerstone of lifelong learning (Candy et al., 1994; Knapper & Cropley, 2000). They highlight that persistence over time and returning to progressively more challenging opportunities is central to the lifelong learning mindset (Candy, 1991).

In summary, the literature describes lifelong learners in terms of the lifelong learning mindset. This mindset involves curiosity about learning, taking initiative (e.g., setting goals, looking for information), drawing from previous experiences (transfer), and reflecting on and overcoming challenges.

Development of a Lifelong Learning Rubric

Despite agreement about the value of lifelong learning, assessing lifelong learning remains problematic. To date, no generally accepted means for assessing students’ lifelong learning mindsets have been established. Several self-report instruments have been offered (e.g., Hojat et al., 2003; Kirby et al., 2010; Wielkiewicz & Muewissen, 2014). However, these are used primarily for research purposes. Their usefulness in course settings is perhaps more limited. Specifically, they are limited by a reliance on students’ perceptions of their own development and therefore are susceptible to any number of self-report biases.

The School of Accounting and Finance (SAF) at the University of Waterloo was interested in developing an alternative approach to assessing lifelong learning. The alternative approach that we chose to explore was a rubric that could be applied to students’ written assignments. This approach was selected for several reasons. First, reflection assignments are common across many programs, including at our institution. Further, they are common in programs that offer experiential education opportunities (Dyment & O'Connell, 2011) which is the case in SAF.

Second, it has been suggested that written reflection assignments may provide educators with insight into students’ approaches to learning and their experiences with learning new things. Educational theorists (e.g., Boud & Falchikov, 2006; Martin & Hughes, 2009) maintain that reflection is a process through which experiences are put into context. Reflections are therefore evidence of what students were thinking during a given learning opportunity.
Other research suggests that how students reflect, such as what they reflect on, is subject to the mindset they have during reflection (O’Connell & Dyment, 2011). For instance, a student could reflect on a mistake as a learning opportunity (consistent with a lifelong learning mindset) or as a failure (inconsistent with a lifelong learning mindset). How students reflect on their experiences, and thus how they write about those experiences, could reveal which students harbour a lifelong learning mindset. With these key reasons in mind, we sought to develop and test a rubric for the purpose of assessing students’ lifelong learning via written reflection assignments.

Our Research Project

The purpose of our project was to develop a rubric for assessing lifelong learning in work-integrated learning students’ written reflections. We conceptualized lifelong learning in terms of the lifelong learning mindset described earlier in this paper (curiosity, taking initiative, transferring ideas, reflecting, and resilience). Our focus throughout the project was in the context of work-integrated learning (WIL) programs in part because of our institutional affiliations and because those programs offer a unique opportunity for students to learn at work and to reflect on their learning experiences. Consequently, they are ideal for using a rubric applied to reflections.

Our project began with a preliminary review of other rubrics that could serve as a basis on which to develop our own. The American Association of Colleges and Universities’ (2009) Foundations and Skills for Lifelong Learning VALUE Rubric was identified as a useful foundation. This rubric contains five dimensions of lifelong learning: curiosity, initiative, independence, transfer, and reflection. Two critical changes were made to this rubric in creation of our own. First, the independence dimension was replaced with a resilience dimension. Our review of the literature highlighted the fundamental role of resilience in the lifelong learning mindset, which was not previously addressed in the VALUE rubric. Independence, we believe, is captured adequately by the notion of self-direction that is already implicit in the initiative dimension of the rubric. Therefore, we felt that this replacement created a more complete picture of a lifelong learning mindset.

The second change that was made was to recraft some of the content across the four levels for each dimension on the rubric. The VALUE rubric is concerned with actions performed by students in classroom settings. For example, the content for level four of the transfer dimension reads: “Makes explicit references to previous learning and applies in an innovative (new and creative) way that knowledge and those skills to demonstrate comprehension and performance in new situations.” Our interest, alternatively, was in students’ thoughts, feelings, and behaviours in the context of their work-integrated learning experiences. Thus, we made several alterations, using the VALUE rubric as a starting point, which resulted in a rubric more generally applicable to workplace settings (see Appendix A).

Data Collection

We used SAF as a context in which to explore the usefulness of the newly developed rubric. Our process involved three related data sources. Access to all data was approved by the university’s institutional review board. The first source of data was SAF students. Students received an email invitation to take part in our project by completing a brief questionnaire about their lifelong learning mindsets. We developed this questionnaire based on our earlier work on the topic of lifelong learning in work-integrated learning settings (Drewery, Nevison, Pretti, & Pennaforte, 2017) and in consultation with existing self-report instruments (e.g., Kirby et al., 2010). As such, the instrument was 15 items long and borrowed from scales that represented the features of the lifelong learning mindset. Specifically, items
were adapted from Martin and Marsh’s (2006) academic resilience scale, Kirby et al.’s (2003) approaches to work questionnaire, and Litman’s (2008) epistemic curiosity scale. A total of 32 students provided usable responses to the questionnaire. They indicated their agreement with each item on the questionnaire using a five-point Likert-type scale where 1 = strongly disagree and 5 = strongly agree.

The second source of data was the application of the rubric to students’ written reflections. For each of the 32 students who provided responses to the questionnaire, a staff member in SAF was hired to apply the Lifelong Learning Rubric to two different reflections. The first of those assignments is called the Major Reflective Report. This assignment asks SAF students to respond to a series of prompts on their knowledge, skills and values after their first work term. This assignment was due just before the end of the student’s first work term. The second reflection is called the Reflection and Personalized Development Plan. This reflection models the components of reflection as identified in this dimension of the Lifelong Learning rubric. SAF students complete it after their second work term, reflecting on their experiences, assessing their development, and then setting learning and development goals consistent with what successful accounting and/or finance professionals do.

This process yielded two different sources of information. One was a set of Lifelong Learning Rubric scores for each of the 32 student participants. Each student received a total of 10 scores, one for each of the five dimensions on the rubric (curiosity, initiative, transfer, reflection, and resilience) which was applied twice (to both reflections). We created a mean score for each assignment by averaging the scores for each dimension on that assignment. These scores were used in correlational analyses (described in the results) to determine whether students’ self-reported lifelong learning scores would be associated with the scores given to them via the rubric. We assumed that students would have an adequate degree of self-awareness regarding their own lifelong leaning mindset. We argue, for example, that students can report with sufficient accuracy whether they are curious about learning new things. If this assumption is correct, then we expected to see modest correlations between students’ self-reports and the scores assigned to their written reflections by the staff members.

The final source of data in the study was feedback from the individual who applied the rubric. This individual is a professional accountant who has been reviewing and providing feedback on student work term reflections for many years. Having seen thousands of reflections in combination with his own personal work and life experience this person was uniquely qualified to provide a thorough perspective on the quality of the proposed rubric.

Findings

We present the findings of our project in four parts: the results of the self-report questionnaire, results of the rubric as it was applied to two reflection assignments, the relationship between the self-report and rubric scores, and the feedback provided to us by the SAF staff member who used the rubric.

Results of Self-Reported Lifelong Learning Questionnaire

We first sought to understand how students responded to the questionnaire administered to them. We found that five of the items on the questionnaire performed very poorly. The key issue for four of these items was a lack of variability in responses between students. This is problematic because those items then provide no information about how students differ. The fifth item was also problematic because it was completely unrelated to the other remaining items. That is, students’ responses to that one item were not consistent with their responses to other items. Given that the items
are theoretically connected because they represent connected aspects of a lifelong learning mindset, they should be correlated. We removed these five items and found the remaining 10-item scale to have strong face validity, a normal distribution (skewness = .31, kurtosis = -.33), and adequate reliability (α = .808). The items from the final scale that we used in subsequent analyses are shown in Table 1.

Table 1. *Items in the Self-Report Lifelong Learning Questionnaire*

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
<th>Rubric</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I believe I’m mentally tough when it comes to learning new things at work. (Resilience)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>In my job, one of the main attractions for me is to learn new things. (Curiosity)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>I think I’m good at dealing with the pressures of learning new things at work. (Resilience)</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>When learning something new at work, I take a step back to see what I know now versus what I knew before. (Reflection)</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>In trying to understand new ideas, I try to relate them to real life situations to which they might apply. (Transfer)</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Some of the issues that crop up at work are so interesting that I pursue them though they are not part of my job. (Curiosity/Initiative)</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>If conditions aren’t right for me at work, I generally manage to do something to change them. (Initiative)</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>When setting work-related goals, I consider how things are going and how I can improve. (Reflection)</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>I apply knowledge I’ve gained from previous experiences to problems that arise at work. (Transfer)</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>During my work terms, I think about my strengths and weaknesses. (Reflection)</td>
<td>10</td>
</tr>
</tbody>
</table>

Notes: Responses are on a five-point Likert scale where 1 = *strongly disagree* to 5 = *strongly agree*. Proposed dimension of lifelong learning to which each item belongs is in parentheses.

The mean score was slightly above the mid-point of the scale ($M = 3.84$, $SD = .49$). The scores had only a small range, such that the lowest self-reported score was three and the highest was five. That is, in general no students seemed to report that they had low levels of a lifelong learning mindset. Given the nature of the SAF students at this University, we believed that this was a possible characterization of the sample.

*Figure 1. Frequency of scores for the lifelong learning rubric applied to students’ Major Reflective Report ($n = 32$)*
Distributions of Rubric Scores

We also examined the distribution of the rubric scores. We counted the number of students who received each score (from level 1 to level 4) for each of the five dimensions on the rubric for each of the two assignments to which the rubric was applied. Figures 1 and 2 show the distribution of scores for the two reflections.

Figure 2. Frequency of scores for the lifelong learning rubric applied to students’ Reflection and Personalized Development Plan (n = 32)

The visual depictions of the distribution of scores suggest that scores for the curiosity and taking initiative dimensions might differ between the two assignments. However, paired samples t-tests revealed that taking initiative but not curiosity scores differed. Specifically, taking initiative scores in Major Reflection assignment (M = 2.47, SD = 1.50) were lower than on the Reflection and Personalized Development Plan (M = 3.44, SD = 1.11), t(31) = 3.20, p < .01. The figures also suggest that scores for transfer and reflection seem to be quite positive and that they do not differ between assignments. There were no significant differences between the two assignments according to paired sample t-tests. Scores for resilience appear to be the lowest of all dimensions, given the significant proportion of students who received the lowest level of resilience on both assignments. Comparing scores for this dimension between the two assignments shows that scores for resilience were somewhat higher on the Major Reflection assignment (M = 1.75, SD = 1.32) than on the Reflection and Personalized Development Plan (M = 1.19, SD = .74), t(31) = 2.68, p < .05. When comparing the average of all dimensions between the two rubrics, results suggest that scores on the Major Reflection assignment (M = 2.49, SD = .67) did not differ from those on the Reflection and Personalized Development Plan (M = 2.60, SD = .65), t(31) = .79, p = .44.

Correlations between Self-Reports and Rubric

We examined the correlations between students’ self-reports and the scores for each assignment. Results show that students’ self-reported lifelong learning mindset is moderately correlated with Major
Reflective Report scores \((r = .42, p < .05)\). That is, students who reported higher (compared to lower) lifelong learning mindsets received higher scores on their major reflection assignments, according to the rubric. The pattern was similar for the Reflection and Personalized Development Plan reflection, but was not statistically significant \((r = .30, p = .10)\). With a larger sample size, it is likely that this degree of correlation would be significant. Scores between the major reflection assignment and the work term reflection assignment also approached significance \((r = .34, p = .06)\). This suggests some degree of consistency in use of the rubric for each student. Students who scored higher on one of the reflection assignments also scored higher on the other. Of course, the quality of students’ reflections is based on many factors (O’Connell & Dyment, 2012). Still, this suggests that, with a larger sample size, one would likely find that the rubric is consistent for each student.

**Experience of Using the Rubric**

We reviewed the feedback provided by the individual who applied the rubric to better understand whether the rubric would be useful to course instructors. Several key insights were obtained from this review. First, it became clear that the experience of applying the rubric was impacted by the prompts provided for writing the reflection. That is, it was easier to apply the rubric to a reflection which was designed to showcase students’ lifelong learning than to a general reflection.

Second, it was acknowledged that reflections in general can be appropriate spaces in which instructors may assess lifelong learning. All five dimensions proposed in the rubric were present to varying degrees in students’ reflections and the assessor had little difficulty differentiating between low and high levels for each dimension. For instance, there was little issue in differentiating those students who were curious from those who were less curious. Curious students wrote about inventing new ways of accomplishing tasks while others did not. Similarly, the rubric was able to detect varying levels of resilience depending on the extent to which students were thrust into unexpected situations which caused them to take on new job responsibilities that they did not anticipate.

A significant insight from the assessor’s comments was that it was difficult to differentiate curiosity from taking initiative. Reflections seemed to feature behaviours more than affective aspects of the work term experience, and so what was assessed was typically what students did, not what they felt. The assessor noted the following:

> I also found that students scoring well in this category also scored well in the curiosity category, which I don’t think is coincidence since to look beyond established processes/procedures, students often took initiative of some degree to demonstrate the behaviour.

This is problematic as it disagrees with our initial conceptualization of lifelong learning.

Based on recent research and our observations on curiosity (see Kashdan et al., 2018), it clearly reflects more of an affective aspect of lifelong learning than does taking initiative, which is more clearly observable. As such, it was suggested that the curiosity dimension be revised to better reflect the quest for knowledge specifically, rather than proactive behaviours that are more specific to task-level performance at work. That is, it could be useful to conceptualize curiosity more specifically as epistemic curiosity, as mentioned earlier in this article (e.g., Litman, 2008) and taking initiative more specifically as proactivity as it is described in the organizational behaviour literature (e.g., Grant & Ashford, 2008).

Finally, the experience of applying the rubric revealed that our initial conceptualization of resilience was
limiting and did not represent the scope of resilient action described by students. The literature surrounding resilience, which tends to include coping with failure and clearly privileges academic contexts (e.g., Martin & Marsh, 2006), may not account for the wide range of examples of resilience evidence in reflections. Resilience was not just about bouncing back from mistakes and failures but rather had to do with overcoming even small challenges, such as dealing with uncertainty at work. In this way, accounts of resilience presented by students rarely included large problems which needed to be overcome and instead featured ways in which they navigated common and daily stressors such as work demands. As such, the resilience dimension should be modified to include how a student handles unexpected work place situations that arose during the course of the work term.

Discussion

The purpose of our ongoing project is to develop new approaches for the assessment of students’ lifelong learning mindsets in the context of work-integrated learning (WIL). Dweck’s (2006) initial description of a mindset informed a description of a lifelong learning mindset as the beliefs and attitudes that facilitate a particular approach to learning new things, one characterized by curiosity and proactivity, transfer of knowledge and self-reflection, and resilience to challenges. In this paper, we described one way to assess this mindset: a rubric that can be applied to students’ reflection assignments. Assignments of this nature are common in many programs, especially those that offer WIL. As such, a contribution of this paper is initial support for the proposed rubric. The experience of using the rubric to assess students’ assignments was mostly intuitive. Students’ self-reports were somewhat consistent with scores obtained by the rubric. Under the assumption that students have insight into their own lifelong learning mindsets, as has been the case in previous research (e.g., Deakin Crick et al., 2004; Kirby et al., 2010), this result suggests that this initial version of the rubric has some validity as an assessment tool.

Limitations and Future Research

We suggest that the rubric provides a useful framework for assessing lifelong learning through written reflection-based assignments. However, it should be noted that the analyses presented in this paper are part of an ongoing project. Our work continues to build off what is described here, in part because of some limitations in the initial study. Due to course sequencing and students’ responses to our call for participation, data for only 32 students were collected. Although this sample is large enough to conduct an initial evaluation of the rubric (e.g., distribution of scores, comparison of scores between assignments, and correlations between rubric and self-reports), further research with larger samples is required to more rigorously test the rubric. At present, we are pursuing new opportunities for testing the rubric in a larger sample.

Further, it was evident that the rubric was useful in differentiating scores for some aspects of lifelong learning but not others. For instance, the distribution of students across the four rubric levels for the resilience dimension was bimodal on both assignments. Students were assessed as being entirely resilient or not at all resilient. Naturally, resilience would be something that students have to varying degrees (Martin & Marsh, 2006). This suggests that the content and wording of the rubric needs to be adjusted in order to clarify and simplify instructions to the assessor. Our goal at present is to edit the rubric to make it easier for use by instructors. Future research to this end will include multiple graders and an analysis of inter-rater reliability, which is a cornerstone of rubric development (e.g., Bresciani et al., 2009).

The correlations between the scores obtained through the application of the rubric and students’
self-reports of lifelong learning depend on the nature of the self-report instrument. A different instrument might identify different degrees of correlation between the rubric and students’ self-assessments. Consequently, we acknowledge the need for additional research that focuses on the self-report instrument. Studies that examine the self-report instrument in different samples of participants may be useful. For instance, it could be useful to compare self-reported lifelong learning characteristics between students and new graduates or alumni. Further scale development studies, such as those which critically evaluate the factor structure of the items would provide further options to instructors who seek to assess lifelong learning characteristics.

References


Development of a Rubric to Assess Lifelong Learning


Biographies

Robert Sproule is a retired faculty member of the School of Accounting and Finance, University of Waterloo. He acts in a consulting capacity to the School on teaching and learning issues, with a focus on learning outcomes.

David Drewery is Research Coordinator, Waterloo Centre for the Advancement of Co-operative Education. His research focuses on service marketing and management, and workplace dynamics in work-integrated learning contexts.

T. Judene Pretti is Director, Waterloo Centre for the Advancement of Co-operative Education. She conducts research in a number of areas related to co-op and work-integrated learning, including how the processes within an organization affect the achievement of outcomes for both students and supervisors.
### Appendix A: Lifelong Learning Rubric

<table>
<thead>
<tr>
<th>Domain/Skill</th>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curiosity</td>
<td>Continually will look beyond established procedures/procedures (people, technology, organization) to make sense of, and complete assigned tasks; with intense interest in all aspects of their job and workplace</td>
<td>Frequently will look beyond established procedures/procedures (people, technology, organization) to make sense of, and complete assigned tasks; with regular interest in all aspects of their job or workplace</td>
<td>Occasionally will look beyond established procedures/procedures (people, technology, organization) to complete assigned tasks; with mild interest in some aspect of their job or workplace</td>
<td>Satisfied with using established procedures/procedures (people, technology, organization) to complete assigned tasks; with low interest in any aspect of their job or workplace</td>
</tr>
<tr>
<td>Taking Initiative</td>
<td>Identifies an opportunity to improve performance or a process related to their job or in another area of the organization; and implements a plan of action.</td>
<td>Identifies an opportunity to improve performance or a process related to their job or in another area of the organization; and looks to their supervisor or peer for direction.</td>
<td>Identifies an opportunity to improve performance or a process related to their job or in another area of the organization.</td>
<td>Completes assigned work.</td>
</tr>
<tr>
<td>Transfer</td>
<td>References existing knowledge, skills and/or values from previous academic, work or life experiences, and applies them in an innovative way to a task in the current work term.</td>
<td>References existing knowledge, skills and/or values from previous academic, work or life experiences; and shows evidence of directly applying them to a task in the current work term.</td>
<td>References existing knowledge, skills and/or values from previous academic, work or life experiences; and attempts to directly apply them to a task in the current work term.</td>
<td>No reference to existing knowledge, skills and/or values from previous academic, work or life experiences.</td>
</tr>
<tr>
<td>Resilience</td>
<td>Bounces back from a stressful workplace experience/adverse situation, choosing not to be deterred, building confidence for handling similar situations in the future.</td>
<td>Eventually bounces back from a stressful workplace experience/adverse situation; will make an effort to persist or push through in resolving it.</td>
<td>Somewhat bounces back; deals with a stressful workplace experience/adverse situation; makes a minimal effort in dealing with it with no resolve.</td>
<td>Might acknowledge a stressful experience/adverse situation in the workplace but is at a loss for how to deal with it.</td>
</tr>
<tr>
<td>Reflection</td>
<td>Reviews their learning on this work term including: referring back to an earlier reflection, benchmarking, how they have progressed on the goals set previously; assessing/benchmarking their current knowledge, skills and/or values; developing specific goals looking ahead; and putting</td>
<td>Reviews their learning on this work term including: assessing/benchmarking their current knowledge, skills and/or values; developing specific goals looking ahead.</td>
<td>Reviews their learning on this work term including: assessing/benchmarking their current knowledge, skills and/or values.</td>
<td>Somewhat reviews their current learning on this work term with no context in terms of past or future goals for development, or assessment/benchmarking of their current knowledge, skills and/or values.</td>
</tr>
</tbody>
</table>
Section III
A Decade of Outdoors Experiential Workshops: Facilitator Reflections and Tips

Judy A.K. Bornais, David M. Andrews, Alice L.E.V. Cassidy, W. Alan Wright, Marie-Jeanne Monette

Though much literature describes the value of experiential and place-based learning experiences for participants, we have found little comparable literature regarding the facilitator experience. This paper provides current and future facilitators of workshops, especially those that take place outdoors, our reflections and ideas as facilitators, including tips for success. Our findings reindicate the conclusion that experiential learning can be as beneficial and transformative for facilitators as for participants, and that what we encounter during workshops parallels what students may go through in our classrooms as they learn. We identify five clear themes from facilitator reflections and encourage readers to consider leading an outdoor experiential learning sessions.

Keywords: reflection, facilitators; outdoor education; place-based learning; conference pedagogy; educational development

Since 2005, the authors, and other faculty and educational developer colleagues have led a total of ten day-long experiential workshops in outdoor settings across Canada in conjunction with the annual conference of the Society for Teaching and Learning in Higher Education (STLHE; Cassidy, Wright, Strean & Watson, 2015). Facilitated on the pre-conference day, and at locales close to the
conference venues, we have worked collaboratively to bring ideas and planning to life. One of us (Wright) has been the lead for all ten workshops.

We have previously written about the value of such outdoor and place-based learning experiences for workshop participants (Wright, Cassidy & Monette, 2013; Cassidy et al., 2015). As to the value of being outdoors, we describe Kaplan’s (1977) premise about natural environments as being fascinating and keeping involuntary attention without mental fatigue. In Cassidy et al. (2015) we expand on this, referring to the findings of Nisbet and Zelenski (2011), where outdoor walks in nearby nature facilitated a sense of connection with the natural world and increased happiness. Ardoin, Schuh & Gould (2012) describe place-based learning, as, in part, how people connect with place and how those connections influence engagement with the environment.

We have previously presented the workshop reflections of these participants—faculty, staff and students of post-secondary institutions attending the annual STLHE conference (Wright et al., 2013; Cassidy et al., 2015)—as well as their metaphors for teaching (Wright, Monette & Hamilton, 2010). We have also referred to the potential benefits for the facilitators themselves. An outdoor education experience can stimulate a more holistic educational process (Wright et al., 2010). The same benefit might be derived for facilitators as well as faculty and others who teach by physically bringing students into the outdoors or by metaphorically bringing aspects of the outdoors into the classroom (Cassidy & Wright 2013, Cassidy, 2015).

In this paper, we focus on the impacts that these outdoor experiential learning events had on the five of us as leaders and facilitators. We see value in this unique perspective. While it is relatively common for those facilitating learning experiences—be they related to conference sessions such as this, outdoor adventure camps with students, or the post-secondary classroom—to study effects on the learners or participants, our approach here is to reflect on the meaning and impact of workshops for the facilitators. We have found little work in this specific area. Glynn (2008) describes a broader concept—training and development of facilitators to work in experiential education—and makes some links between facilitating and teaching. As Ambrose, Bridges, DiPietro, Lovett and Norman (2010) assert, learning is a developmental process, not a product.

The Workshops

In all of its iterations, the workshop has involved paddling, usually in kayaks and/or canoes, in salt water or fresh water, walking and observing the natural environment, partaking of simple communal meals in the field, and discussing and reflecting with the participants on educational themes and related topics.

Dillon et al. (2006) note the importance of attention to preparatory work in outdoor learning. Well before the actual workshops take place, much planning is involved. One of us (Wright) explores a logical location of the paddling day near the conference venue, booking equipment and planning other logistics often up to a year in advance. As the team of facilitators is assembled, we determine which of us will take on various roles. Each year, these include writing a workshop description to match the conference theme, promoting the event to delegates, planning food—with allergies, preferences and food safety at top of mind—it inviting self-described paddling ability in order to pair people up, and coordinating carpooling or other ways to reach the paddling venues. Two of us rent a boat the day before each actual workshop to test and refine our workshop schedule.

Each year, participants have been post-secondary teachers and educational developers, be they faculty, staff or students, from a variety of disciplines. Facilitators have roles in post-secondary education as teachers, researchers, administrators and educational
developers. Workshops begin in the open air, at the boat launch sites, with personal introductions of the participants and facilitators. Over the years, all have been committed to exploring notions of pedagogy and the enhancement of teaching and learning in higher education. There is clearly buy-in from the start and people are happy to be there: anticipation prevails.

As facilitators, we provide some details on how the day will unfold, safety precautions, and tips on observing the natural world. In addition, participants are often asked to reflect on a number of specific themes, linked with teaching and learning pedagogy, scholarship of teaching and learning, and how they relate to the activities of the day. During each year’s debriefing session at day’s end, before returning to the conference site, we have invited informal written reflections. See Wright et al. (2013) and Cassidy et al. (2015) for descriptions of some of our workshops.

Methods

At the end of each workshop, participants (15-25 per workshop) and facilitators (3-5 per workshop) write brief reflections. These are done informally on index cards and without pre-determined structure or format.

We adopted writing as a method of inquiry (Richardson and St. Pierre, 2005; Vander Kloet et al., 2017) for the reflections in this paper. The model of reflective practitioner is well-accepted for classroom practice (Schön, 1983). We are drawing on the notion of reflective practitioner at the level of educational development because reflective practice is fundamental to experiential education (Association of Experiential Education, 2016). Experiential educators purposefully engage in focused reflection to increase knowledge, develop skills, clarify values, and develop people’s capacity to contribute to their communities (p.1). Five of us who co-facilitated the workshop multiple times shared with each other longer, more descriptive written reflections (averaging 787 words) after the tenth workshop, compared to those we wrote on index cards at the conclusion of each workshop. Reflections were analyzed by hand and grouped for patterns in meaning and overall themes (Sandelowski 2000; 2010). All five of us reviewed the reflections independently for commonalities and discussed patterns in the reflections. Though written from our individual perspectives, and sometimes related to the unique disciplines in which we are situated (Education, Kinesiology, Nursing, Zoology), five distinct themes emerged, which we describe below, illustrated using narrative excerpts.

Though it is common to plan educational events with the participants in mind, as we studied the reflections we wrote, we determined that much could be learned by examining the impacts of experiential education events as professional and educational development for the facilitators.

Model of Reflective Practice

To provide structure and to help contextualize the facilitators’ reflections, we considered the reflective practice model of Mezirow (1990; 1993; 1997). This model suggests that critical reflection involves a critique of the presuppositions on which our beliefs have been built. Learning can be defined as “the process of making a new or revised interpretation of the meaning of an experience, which guides subsequent understanding, appreciation and action” (Mezirow, 1990, p.1). It further proposes three forms of reflective practice, categorized as public reflection, which we see being very parallel to our workshop experiences. These include content reflection, process reflection and premise reflection (Raelin, 2001).

Content reflection involves “a review of the way we have consciously applied ideas in strategizing and implementing each phase of solving a problem” (Raelin, 2001, p.12). We feel that content reflections
relate to the structure of the activities throughout the
day, the organization, events, timing, leadership on
the water, and other aspects of each workshop day.
Process reflection examines procedures and
assumptions as we engage in problem solving
(Raelin, 2001). Kreber (2004) speaks to the value of
reflecting for both facilitators and teachers, asking
ourselves how effective we have been in our
instructional methods. In order to do this, we can
seek feedback and evidence from learners
(participants), as well as from relevant literature. She
describes the “nature of our learning as both
instrumental and communicative, both predicting
how students (learners) will respond and trying to
learn through interactions with others” (Kreber,
2004, p.33). During the workshops, we reflected on
the process, including adjustments in activity timing,
dealing with unexpected issues in participant pairings
within the canoes, making parallels between leading
educational development activities and classroom
management.

Premise reflection refers to challenging the validity of
presuppositions in prior learning (Mezirow, 1990)
and are different from procedural considerations and
reflections. Premise reflections are critical reflections
which “address the question of the justification for
the very premises on which problems are posed or
defined in the first place” (Mezirow, 1990, p. 4).
Mezirow goes on to note that encountering new
meaning perspectives can redirect the way we engage
in the world as we challenge what we fundamentally
believe. In this way, premise reflections can be
transformative. Our major collective reflection
regarding workshop outcomes led us to appreciate
the benefits of such events for facilitators. This
fundamental shift in our thinking, which challenged
our presuppositions in prior learning, is that
experiential learning should not just focus only on
the participants. In fact, we came to realize that
much was to be learned by examining the impacts of
experiential education for our own professional
development. After all, experiential learning is “the
process whereby knowledge is created through
transformation of experience” (Kolb, 1984, p.38).

Furthermore, “transformative learning may arise
through the acquisition of emancipatory knowledge,
‘the self awareness that frees us from constraints
[and] is a product of critical reflection and critical self
reflection’” (Cranton 2002, p.64, in Harvey, Coulson
& McMaugh, 2016 p. 7). Through our reflections as
facilitators, we gained a new perspective of
experiential learning as being as beneficial for the
facilitators as it is for the participants.

Five clear themes emerged from our reflections as
facilitators: interdisciplinary approaches to learning,
experiential learning, teamwork and collaboration,
the interplay of space, place and identity, and the
development of a sense of community. These themes
reinforced that experiential learning can be as
beneficial for facilitators as for participants and that
what we encounter during a workshop parallels what
students may go through in our classrooms as they
learn. We chose excerpts from our reflections to
illustrate each theme.

**Interdisciplinary Approaches to Learning**

Outdoor workshops provide an excellent
environment to reflect on interdisciplinarity, partly
because of the nature of the setting and the varied
backgrounds of the participants. Furthermore,
experiential learning theory research is highly
interdisciplinary, addressing learning and educational
issues in many fields (Kolb, 2014). All five of us
included the interdisciplinary aspect of the
experiences and its connection to our academic
backgrounds in our reflections. Jacobs and Frickel
(2009) define interdisciplinarity as communication
and collaboration across academic disciplines. This
certainly was the case with participant discussions
during the workshops.
Reflections

1. As a physical educator I believe in learning activities that involve the whole body. I like the notion that learners should “engage intellectually, emotionally, socially, soulfully and/or physically” (Association of Experiential Education, 2016). I see the advantages of exercising in nature and in taking the time to discover the surroundings.

2. It amazes me that canoes, at least in these conditions, can accommodate such a wide variety of people and abilities. We also echo the words of a recent workshop participant in discussing interdisciplinarity: the benefits and the need for interdisciplinarity in higher education, is simple and definitely on-target: “We need interdisciplinary approaches because life is interdisciplinary”.

3. I am a science educator and educational developer with a great passion for the natural world. I have been fortunate to find ways to combine these skills and interests in a variety of ways. I feel that place and/or field-based, experiential and active engagement with the world around us is a valuable and necessary aspect of higher education today. Pressing issues such as climate change, informed use of natural resources, and related sustainability topics, not only have many academic and interdisciplinary connections, but also challenge students to come up with practical real-world solutions.

Experiential Learning

As described above, experiential learning according to Kolb (1984) is “the process whereby knowledge is created through transformation of experience” (p.38). When individuals learn a skill or come to understand an idea through hands-on efforts in an outdoor setting, they become physically and emotionally engaged and the “embodied learning is memorable exactly because it looks and feels different from what has come to be commonplace in education, learning through lecture or other passive means” (Howden, 2012, p. 43). Our reflections below reinforce the importance of hands-on learning and how teaching is a dynamic process. They further suggest that, as educators, we need to be thinking about the importance of engaging our learners and helping them to feel safe in potentially new learning environments.

Reflections

4. When reflecting on the workshop I can’t help but think of the logistics and how essential the attention to detail is for learning experiences to be successful. I see many parallels to what occurs in my teaching. In order for the experiential learning opportunity for my students to be meaningful, I spend many hours ensuring all of the details are in place. Like our paddling pedagogy, I always have a dry run with instructors and peer mentors to ensure that there aren’t any aspects that we missed or details that need to be newly considered.

5. In a variety of university courses I designed and taught, I have incorporated ways to take students outside, and ways to bring the outside in. As an educator and educational developer, I feel great satisfaction when students or teaching colleagues show they are enjoying their learning, work and practice through connections to the natural world. Part of my teaching philosophy is to feel that I have made a difference. To see a student or teacher articulating how they will apply their learning and explorations, continuing that cycle by making change and teaching others, is about the greatest thing I could hope for.

6. Most canoes were well on their way, but we saw a pair of paddlers struggling. Pulling alongside, we tried to coach them from our canoe, but after several minutes of watching
the two paddlers continue to struggle, we switched pairs, so that a more experienced paddler was now in the stern of each canoe. This is not much different than what occurs in the classroom. Sometimes we need to coach from the side and sometimes we need to offer opportunities for greater support so that our learners can get the most out of the experience. While we want our learners to be able to take off on their own, as teachers, we need to build in safety nets to catch our students and be able to help them navigate the waters with our support until they can do so on their own.

Teamwork and Collaboration

We identified the importance of teamwork and collaboration resonating throughout the entire process of planning and engaging in the workshop experience. As facilitators, collaboration starts with the planning process. See sections on “The Workshops” above and “Tips for Facilitators” below. On the workshop days, participants usually found themselves paired with strangers to paddle canoes, navigating, collaborating, and sharing the decision-making process. Many were reminded of the importance of teamwork and reflected on the importance of collaboration. The notion of teamwork as a necessary skill in outdoor education has been shown in the literature (Roos, Lennox & Botha-Ravyse, 2016). In a 2014 and 2015 study of an outdoor adventure education event, researchers reported teamwork as one of the two most frequent skills developed by first-time participants. The importance of teamwork and collaboration clearly came through in our reflections.

Reflections

7. The conditions on our dry run were severe. It was very hot and a very strong south wind blew us down the channel. We knew this would have been extremely challenging for novice paddlers. They would have needed a lot of help had the same conditions prevailed the next day. How would a go vs. no go be established when adverse weather conditions persist? As educators, do we have a ‘Plan B’ when circumstances dash our original plans? Would reasonable collaboration have turned to chaos if we had set beginning paddlers out in windy conditions they had no chance of mastering?

8. Paddling in a canoe with someone you don’t know takes a lot of trust and teamwork/collaboration at first, in order to be safe, and efficient. Once I started paddling, my experience kicked in and I was able to focus on my partner and the natural world around me. I was relaxed, happy, and able to live in the moment. I felt like I do in front of a large class when I am teaching material I know extremely well. I just relaxed and enjoyed the connection with place and person. Paddling was the perfect activity to set the tone for the day – it forced us to connect, collaborate, and communicate.

9. The notion of teamwork came to life in our canoe as my counterpart described her thoughts on being a team in the canoe. She mentioned how important trust was for her as my teammate [in the bow] since she could not see what I was doing and at times had to give up control. In the stern, I reflected on needing to watch my partner and to follow her lead. This is often what happens in academia, both with colleagues and students. As team members, we need to rely on each other, trust them and work towards a common goal.
The Interplay of Space, Place and Identity

The interplay of space, place and identity was also a consistent theme in our reflections. Part of our strategy of an annual foray into the natural setting has been to invite participants and leaders to think and re-think educational issues in an outdoor environment characteristic of a particular geographic region of Canada. This allows participants, who are also attendees of a conference held in the built environment, to be immersed in a region’s more natural and sometimes undeveloped guise. Often a recreational excursion attracts participants to come early and/or stay after the main conference is over. This can be an otherwise missed chance to see the natural world and network informally with conference delegates (Cassidy & Popovic, 2018).

Location can be an integral part of planning, organizing and attracting participants to a conference (Cassidy, 2018). Natural settings are selected because exercising in natural environments has been shown to be associated with, “greater feelings of revitalisation and positive engagement, decreases in tension, confusion, anger and depression and increased energy” (Thompson Coon et al., 2011, p. 1761). Furthermore, it fosters collaboration in and out of the canoe, working as teams and providing an environment for relationships to develop. Quay, Dickinson & Nettleton (2002) showed that caring between school students was more likely to be experienced in an outdoor education context than inside a classroom. The relational aspect of learning is fundamental to the experience, and this notion was underlined in our reflections.

Reflections

10. I love the chaos on the dock as people pair up, select paddles and personal flotation devices, and get into the canoes. Some take off as if there was a prize for the fastest. Some are tentative and a bit nervous. The participants, in this environment, have become explorers. I have been canoeing from a young age and here I am, decades later, so happy to share the joy of paddling in this natural space with this group – including many mid-career adults—some having never wielded a paddle in their lives!

11. Even if I didn’t know them at the beginning of the workshop, I found that participants were already friendly and open. They were excited and ready for an adventure and that gave me great satisfaction in my work. Looking back on the benefits of exercising in nature and the behaviour of the participants, I can only be happy to do what I do. The positive rapport established during these workshops remains beyond the day. Something happens in nature that you won’t find in the classroom.

12. The trees, rocks and water made me feel at home—an immediate and unquantifiable sense of connection to everything and everyone there. This initial experience with receptive and understanding people within a peaceful, beautiful place, helped my confidence. I may not have been able to say what I felt very eloquently to start the day off, but I felt appreciated, I felt that I helped others have a good experience … and I felt closely connected to the place and the people.

13. I remember when I was first introduced to the identification of birds in their natural environment. All of a sudden a whole world opened up to me. I went to places I had been many times and now saw living things that were obviously there before. I so much enjoy opening worlds to others, such that they can go to a new place or somewhere they have been before, but see nature as they had not necessarily done in the past. I aim for this with my learners.
The Development of a Sense of Community

One of the strongest shared outcomes of participants and facilitators alike has been the sense of community arising from the shared experience of a single day. Allen-Craig and Carpenter (2018) wrote of their involvement in developing outdoor education programs and the sense of community they felt through their involvement (p. 66). They further described the role of outdoor education as an “all-inclusive experience for personal development, health and well-being, community development… teamwork” (Allen-Craig & Carpenter, 2018, p.67). The identification of outdoor education resulting in connections being made that led to a feeling of, “community and a sense of belonging” was also described by Cameron (2018, p. 274). A study by Austin, Martin, Mittelstaedt, Schanning and Ogle (2009) found that participants in their outdoor orientation program reported an “increase in sense of place and social benefits” as a result of the experience (p.437). In our reflections, we emphasized the communal experience as part of our values, the unique rapport developed among participants and facilitators in this special context, as well as increased knowledge of the community beyond the paddling setting as a part of our preparation and practice.

Reflections

14. I think sharing food with others can help build community. Listening to the conversations around the picnic tables was interesting; much discussion about the importance of place and space in learning. Sometimes I forget how important it is to sit and eat with friends and colleagues. The connectedness, the relational aspect of the experience was really powerful. This sense of community, of connections/relations, afforded an opportunity to get to know and share in a different way than I think is possible inside the classroom.

15. In the high school where I taught for a few years, we had the tradition of bringing the first year students to a camp in a natural environment where we participated in outdoor activities. The goal was to establish good rapport between teachers and students and also among students who did not know each other. Coming back to school we could feel that something was different: a rapport that was deeper than at the beginning of the school year.

16. Co-leading the paddling excursion is one of my favourite events. People, many of whom have never met before, are fully engaged, enjoying nature, talking about teaching, learning and scholarship. They become fast friends and colleagues for the rest of the conference days and often beyond.

17. In conversations we had with people living and working near the paddling site, we were reminded that many local, family-owned, and long-established businesses thrive there, often attracting vacationers of all ages each year. We found that conversations can move into areas of mutual interest and experience, in one case about schools connecting to community, and how local business people become involved in educational projects. In a community thriving on the influx of visitors, family, school life and business are all wrapped up with local concerns.

Tips for Facilitators

In reflecting on our experience, we offer a few suggestions for facilitators. Although we focus on the outdoor learning events we led over many years, some of the tips may apply to other learning events:

1. Assemble an enthusiastic team of facilitators; celebrate your individuality and
work in planning your event to make the
best use of each team member’s skills and
interests.

2. Promote your event to prospective
participants, and once assembled, keep them
informed of how to prepare and make the
most of the event; hear their voices and
create a community of learners.

3. Conduct a dress rehearsal or dry run before
the actual event to determine any
unexpected site-specific details and make
Plans B and C. Discussions with locals help
make important connections and adds
richness.

4. Be prepared to be flexible and responsive to
the needs of your participants on workshop
day.

5. Make time throughout the event for
discussion, quiet reflection, sharing and
enjoyment by learners and facilitators alike.

6. Celebrate!

Conclusion

The five themes emerging from our reflections show
that a wide variety of impressions were made on us
as facilitators while paddling in the outdoor
environment. We realized through our reflections
that the experiences were as beneficial for us as
facilitators as for participants. Together, the
workshops we have led over ten iterations have been
transformative for all of us as we realise that
experiential learning should not focus only on the
participants. As facilitators, what we encountered
during the workshops parallels what students may go
through in our classrooms as they learn. We were
able to draw parallels between facilitating in an
outdoor environment with teaching in our
disciplines. Many similar themes were noted by
Ashworth (2017), including feelings of
connectedness, the value of learning outdoors,
experiences and personal development. “Learning is
influenced in fundamental ways by the context in
which it takes place.” (Bransford, 2000, p. 25).

We agree with the views of Baldwin, Flood, Naqvi,
Ratsoy & Templeman (2017) about pedagogy of
place in post-secondary education: greater emphasis
needs to be given to educating students about the
places they come from and the places they come to
learn. During our pre-conference paddling
workshops, we have focused on the importance of a
sense of belonging, both to a community and to
place. We encourage future participants of STLHE
and other conferences to propose sessions that make
the most of place, especially outdoors.

Drawing on the work of Dewey (1938), some of our
philosophies of education involve facilitating
learning through meaningful experiences. Freeman,
Nelson & Tanicuchi (2003) note that “educational
experiences need to be transferable from one setting
to another at some point in the future, and there must
be opportunities for students to reflect on their
experiences so that they can learn from them” (p. 7).
Even as facilitators, we must reflect on the
experience to take meaning from it and to relate it to
the classroom/lab environments in which we work.
We can look at the value and importance of logistics.
In the classroom, a successful experiential activity
requires thought, planning, structure, organization,
back-up plans, relevance and attention to detail.
Working in a team poses additional opportunities,
challenges and considerations.

There is often uncertainty and risk in teaching, as
there was for us in facilitating the paddling
workshops. Aadland, Lennart Vikene, Varley &
Vegard Fusche (2017) describe the importance of
awareness of potential hazards when learning in the
outdoors. As facilitators and leaders, we see the need
to create a space where there is safety in the risk. This
will allow for deeper learning for all involved.
Reflecting on the experience and making
connections to our teaching and educational
development practices allowed us to think about
what we see as a purpose in higher education—to
make meaning of the experience and of teaching. Skelton (2009) writes that “teaching excellence … focuses the mind on the underlying purposes of teaching in higher education and it also represents a potent force to drive us forward in our efforts to understand and improve what we do” (p.107). The time for reflection as facilitators helped us, as educational leaders, on our journeys to improve our teaching, and reinforced the importance of meaningful interactions with colleagues.

References


https://cassidyinview.wordpress.com/in-class-activities/bring-the-outside-world-into-your-class-and-vice-versa/


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A Decade of Outdoors Experiential Workshops


**Additional Resources**

See links to related materials with downloadable resources you can use in your own teaching or facilitating practice: https://cassidyinview.wordpress.com/in-class-activities/bring-the-outside-world-into-your-class-and-vice-versa/

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Train Wrecks: 3M National Teaching Fellows Explore Creating Learning and Generative Responses from Colossal Failures

William B. Strean, Patrick T. Maher, Kim Brooks

We all fail. We also like to look good and avoid looking bad. So, even though we know that taking risks and trying new approaches are important for enhancing our teaching and students’ learning (Strean, 2017), we rarely talk about our failures. Our claim in this paper is that our insecurities create a substantial barrier to improving and enriching our teaching practices. If we do not find time to take big risks, and then to explore and critically reflect on failures that result sometimes from those risks, we lose out on the chance to become better teachers; more fundamentally, we deprive our students of the chance to have extraordinary opportunities to learn.

Nous connaissons tous des échecs. Or, nous voulons projeter une image positive de nous-mêmes. Ainsi, même si nous savons qu’il est important de prendre des risques et d’essayer de nouvelles approches pour améliorer notre enseignement ainsi que l’apprentissage de nos étudiants (Strean, 2017), il est rare que nous parlions de nos échecs. Dans cet article, nous avançons l’idée suivante : notre manque d’assurance constitue un obstacle considérable à l’amélioration et à l’enrichissement de nos pratiques d’enseignement. Si nous ne nous donnons pas du temps pour prendre des risques importants, puis pour réfléchir de manière critique sur les échecs qui découlent parfois de cette prise de risque, nous laissons passer une occasion de nous améliorer en tant qu’enseignants. Qui plus est, nous privons ainsi nos étudiants d’occasions d’apprentissage exceptionnelles.

Theoretical Frame

Telling students that failure is an essential part of the learning process will not free them from their concerns. Similarly, urging professors to take risks and be open to failure in their teaching will not be sufficient for them to change their behaviour. Our perspectives on failure need to be explored and re-considered and we need room to make mistakes on the path to better teaching. We believe the approach that Dweck (2015; 2017) has demonstrated to be effective with students offers a useful way to position our consideration of teaching fiascos. Dweck differentiates fixed mindsets, which lead to giving up, from growth mindsets, which are associated with grit and resilience. Students with fixed mindsets “are invested in looking smart and never looking foolish” (2015, p. 10). Professors can have even greater commitments to appearing intelligent and avoiding any displays of incompetence. Research (Gero, 2013) using Dweck’s framework shows that teachers with more...
of a growth mindset value learning over looking good and avoiding risks. Similar to students with growth mindsets, they were more interested in learning than in their reputation as a good teacher. Teachers with a growth mindset believe that the value of attempting new teaching methods outweighs the risk of making a mistake; the development of teaching ability merits taking risks in aid of improvement. We believe that fostering growth mindsets is a useful underpinning for considering our pedagogical mishaps.

We wish to contribute to discourses that are seeking to make failure more visible, while normalizing and destigmatizing it such as Stanford’s Resilience Project, Success-Failure Project at Harvard and the Princeton Perspective Project. One of our favourite examples from Smith College called Failing Well provides students a certificate of failure upon entry, a kind of permission slip to fail. It read, “You are hereby authorized to screw up, bomb or fail at one or more relationships, hookups, friendships, texts, exams, extracurriculars or any other choices associated with college … and still be a totally worthy, utterly excellent human” (Bennett, 2017). Wouldn’t it be nice to receive a similar allowance when stepping into the classroom? Productive analysis of failure is essential to becoming a critically reflective teacher (Brookfield, 2017).

The Set-up

In this paper we share experiences of when something didn’t just go slightly wrong, but something completely backfired. We believe part of the fun and intrigue of this paper is seeing that even those who have been publicly acknowledged for excellence in teaching and educational leadership have had significant failures despite the fact that they are often less publicized. We consider how we can all respond more effectively and have greater freedom to attempt novel approaches. When we interact with new student characteristics and broader cultural influences, we are bound to face challenges. Each of the three authors shares a teaching train wreck, examine what was learned, and raise broader considerations for reflection on teaching and learning.

Vignette One: Racism, Law, and Disorder (Kim Brooks)

The Story

Law students confront a dizzying array of career trajectories. Their future paths are not, however, entirely their own to determine. Among other variables, irrelevant factors like students’ gender, race, or disabilities continue to restrict some career choices and directions (Roderique, 2017).

I was teaching a small group (30 students) of students in first year. As their small-group instructor, I was responsible not only for a substantive area of law, but also for providing students with an introduction to the legal profession. As part of that introduction, I believed it was important to set some context for the continuing discrimination within the profession itself. Relatively early in the term, before I had come to know the students very well, I invited one of the leading equity lawyers in the province (an African Canadian) to come to the class to discuss some of the recent empirical work on the experiences of racialized lawyers.

When the guest arrived, I took a seat in the audience among the students. The class was stacked so the speaker was in the front and then students sat facing him in rows that were tiered. Not very long into the guest speaker’s remarks, a male, Caucasian student in the back row interrupted the speaker to question some of the speaker’s claims. The first couple of questions were direct and challenging, but the student pervasively interrupted and asked increasingly hostile questions throughout the presentation. He questioned every piece of data
presented, asked the speaker to address reverse racism (the racism of minorities towards white people), and eventually, the student loudly interjected, “I just don’t believe you.”

The rest of the class was silent. Not one person asked a question or otherwise visibly engaged. Quite a few students looked down. The guest speaker, who was a leading senior lawyer, did not appear visibly flummoxed by the student’s interventions, although I would describe the environment as hostile and the student’s questions and engagement near the end of the talk as explicitly racist.

I did nothing. Having set myself up among the students, I felt it would seem awkward to move back to the front of the room to interfere; and I worried that it might suggest I wasn’t confident in the speaker’s ability to respond to the questions. I was embarrassed about the student’s behaviour and could not find my footing to ask a question from the floor that might have interrupted the flow. The message of the session was lost to the drama of the classroom.

After the speaker left I asked the student to stay behind so we could talk about what had happened in the class. This felt like a big risk – I could see that I had lost the confidence of the class. If the student did not stay, I worried that my authority would be completely undermined. The student stayed. I told the student why I thought his engagement with the speaker was impolite and improper, and unbecoming of a lawyer. We had a heated, but thoughtful, discussion.

It took me some classes to feel like I had regained the confidence of the class. I felt I needed to spend more time talking about discrimination in the legal profession than I would otherwise; in part to ensure that the students had a foundation for the conversation that they collectively lacked before the guest lecture. I also wanted to show that I wasn’t afraid of the topic or willing to be bullied by one student into reverting to more easily discussed doctrinal material.

Key Learnings

In hindsight, I made a number of mistakes that together added up into an incident that resulted in a loss of confidence in my teaching (something I consider a failure). First, although I know that discrimination can be a complex topic that generates strongly held views, I did not set up the class appropriately for the guest speaker. We had no shared materials or language and no plan in case the conversation became confrontational. Second, I failed to support the guest speaker. I did not know him personally, so I had no rapport to build on in engaging him in the discussion during the class. I didn’t spend enough time in advance of the class talking with him about how I could lay the groundwork for his visit, nor did I ask for his advice on how he would like me to engage during the visit. Third, I was too inexperienced to know how to effectively intervene. There isn’t a lot that you can do to develop experience except to let time pass make mistakes that you learn from.

The conversation with the student who had been disruptive resulted in a positive outcome that was rooted in failure. At the end of about 30 minutes of this challenging dialogue, the student began to weep. He talked about his fears and struggles with his own place in the legal profession. It gave me insight into the complexities of these moments, especially when you don’t set them up properly. Perhaps as a result of this conversation, I ended up with the student in every class I taught all the way through his years of law school. Although we may fear or avoid difficult confrontations with students, they can ultimately deepen our connections.

Broader Applications and Reflections

This incident was one of a few things that happened to me early in my career that inspired me to spend more time thinking about how to create an inclusive classroom. I think that without this failure, I might not have focused on that aspect of my teaching as
early as I did. One advantage of a failure is that it
concentrates the mind on a topic and can spur us to
do better or learn more about ourselves as a result.

Vignette Two: Up the River without a Paddle? (Pat Maher)

The Story

When I first arrived at the university I had just
finished 100 days of paddling from Hinton, AB to
the Kugluktuk, NU, 30 of which included students
from another university. This experience, coupled
with reading a story in a recent issue of National
Geographic magazine, led me to dream about field
course possibilities in and around my new home.
The VP Academic was supportive, my new
colleagues were interested, and the student body
seemed very excited. Having worked in outdoor
recreation and outdoor education for many years, the
idea of taking students into remote wilderness
settings was not new. However, planning and
implementing this in the setting of higher education
was new, particularly for this institution.

I made local contacts in the geographic area to figure
out logistics, and I read books/accounts, scoured
maps, and wrote a fairly exhaustive risk management
plan. I re-certified first aid and rescue qualifications
and built a case for why this course was needed.
However, when I presented it to my university, there
was a general look of confusion. What was all of this?
Why was it needed? Other field courses already
running didn’t present nearly as much detail. The
response I got was that I could run a course because
I had a PhD as long as I went through the regular
channels and filed the necessary paperwork, finance
forms, etc. So, I did.

At that stage I thought it would be easy. The course
was approved, I collected fees from interested
students and paid for the appropriate logistics, and
we were on our way. We started the trip with

conversations with local knowledge keepers (former
Parks Wardens, First Nations representatives, etc.).
We took it easy through the first week of canoeing
on a relatively gentle stretch, and by the third week
the group was solid, well-functioning, and able. Then
an accident, a “near miss”, occurred. We were two
to three days from the nearest community, enjoying
the large volume flow of the river, when we came
around a corner and a big wave swamped all our
canoes. On this particular day, my co-instructor (a
volunteer Post-doctoral Fellow) and I were paddling
together. Every boat was underwater to some
degree. The weather was a bit cold, and because we
had just recently been in a community and were on
the final stretch before returning home, our minds
were likely already elsewhere. All combined it made
for a very bad situation.

Luckily, one boat got to shore, we rescued two
others, and within 30 minutes, all of our gear was
recovered and we were attempting to dry out. We
got lucky. This is a tale of potential disaster that
could have ended badly. And for more than 10 years,
I have not really discussed it or reflected on it, nor
wanted to. It was a very large failure, one I should
have expected/seen coming based on my 20+ years
of outdoor instructional experience beforehand. We
joked about it as the trip ended, and all went our
separate ways; however, I’m constantly reminded of
what could have been and I’ve tried to make changes
within the institution of higher education, but it is a
slow process.

Key Learnings

My reflection revolved around asking the question:
“What if?” What if that accident had left a student
dead? How would lives have changed? Participants
would not have become doctors, Canada Research
Chairs, firefighters, parents, and educators. What
would have happened to my career? What would
have been the psychological and financial
implications? I didn’t share this near miss with
anyone at the institution. We had no process for that
at the institution, and at the time I was embarrassed
by it and felt vulnerable. The key learnings have set some critical paths for me in terms of how I act and seek to provide leadership towards the meaningful use, and safe implementation of field courses. It has guided me to make some tough choices in future work; what I will let occur, and what I won’t – in prep, set up, logistics and simply participation. I hope my students remember that day, but it certainly shaped my journey towards becoming a 3M National Teaching Fellow, and some of those students even wrote me nomination letters.

Broader Applications and Reflections

Higher education, from the faculty level right up to senior administration is reasonably complacent when it comes to risk management in grey areas. Everyone knows that buildings must be built to a certain code, or lab chemicals stored under certain restrictions. There is even a Canada-wide insurance program that universities subscribe to, to assist them. However, in the grey area of risk management for a field course, paddling a remote river, there doesn’t seem to be much guidance. If you have a PhD, you can run a course despite a lack of proper experience in risk management. It’s not needed. We sit in a reactive bubble waiting for something bad to occur. Not all institutions fall into this trap, but I would suspect that many do because they are stuck between a lack of knowledge, concerns over budgets and enrollment numbers, and the sheer trendiness of running field programs, which can give a university great publicity.

Interlude: New Perspectives on Failure

Prior to the final vignette, we would like to play with underlying notions about failure and how shifting our views may contribute to greater freedom and power in our teaching explorations, and, perhaps, facilitate growth mindsets. Why does failure seem so egregious that it keeps us from pedagogical enhancement and projects that might support better student outcomes? In this section, we offer some quotations as catalysts that may help alter our perceptions of and relationship to failure.

“Failure is an event. It’s not a person.” – Zig Ziglar

If you have ever heard the popular motivational speaker from Alabama, you might imagine his loud and enthusiastic drawl punching out these words. He captured a key feature of many people’s default experience of failure. If failure is not personal, if it is something that happens rather than a character trait, it is far easier to cope with. If, after you try something new in a course and it does not work out, you morph “it failed” into “I am a failure,” then you may have to overcome significant dismay. If failure is simply an occurrence, it can be an opportunity to learn about what works and what does not work when attempting a new instructive method. This may reveal where there are new actions to take or a dissimilar approach to employ. When depersonalized, failure may begin to relax its grasp. What can propel us forward after failures is the recognition that just because one class contained a failure, it is situational and not personal; our next outing may be a success.

“Fail faster to succeed sooner” - David Kelly, CEO of IDEO

For most skills, we can identify a somewhat predictable number of errors on the path to competence. Consider the progressions in learning to ride a bicycle. It is inevitable that learners will tip to the left; they will also tip to the right; they will stall out. If learners engage in a manner where they attempt to avoid experiencing these wobbles, it will prolong the time it will take them to achieve riding competence. The educational system communicates that right answers are what matters and thus the possibility of a powerful relationship with failure is dismantled. If students discover and expect that any learning will require some discomfort, unfamiliarity, and moments of incompetence, it can be like pulling off a bandage all at once to try to experience these
inescapable errors as quickly as possible. We often emphasize the value of process (try, revise, and try again) to our students, expecting them to willingly accept that failure precedes competence, yet many of us are reluctant to apply those same insights to our own teaching endeavors. It seems ludicrous that human beings attempt something they have never done before and expect to do it right the first time. If, instead, we begin with curiosity and actively seek the mistakes that will lead to successful performance, we may avoid the typical suffering that comes with failure, and we become more competent teachers more quickly.

“If you don’t make mistakes, you’re not working on hard enough problems. And that’s a big mistake.” - Frank Wilczek, 2004 Nobel Prize winner in physics

We are increasingly convinced that much of our ennui and ineffectiveness as academics (and in life) may come from not having big enough problems. When we catch ourselves being worried or upset about what other people are doing or what evaluators think of us, it can frequently be evidence that we are not working purposefully. This quotation also reminds one of us of experiences teaching waterskiing at summer camp. If kids made it around a loop of the lake without falling, they most likely were not learning. If we take on worthwhile challenges in our teaching, we are going to make mistakes, possibly encounter rejection, and likely spend some time scratching our heads wondering what to do next. This can be good news. When too much of our life seems easy or routine, we may be heading toward the boredom side of flow (Csikszentmihalyi, 1975; 1996) and we may get stale. Our best and most fulfilling teaching will most likely occur when we are pursuing goals that challenge us. Including contentious, and potentially emotionally heated issues like race in a law class or going far beyond the walls of the classroom into extended field expeditions are challenges worthy of attempting and, perhaps, not getting right the first time.

“A man’s errors are his portals of discovery.” – James Joyce

And, of course, so are a woman’s. A powerful relationship with failure is one of the most effective elements in developing and progressing toward excellence in facilitating learning. A true commitment to learning and continuous improvement means welcoming errors as pathways to new understanding. We can consider the often recalled process and how much Thomas Edison may have absorbed on his way to creating the electric light. He denied failing 999 times and suggested, “the light bulb was an invention with 1,000 steps.”

“What is the best mistake you ever made?” - Gratitude Challenge

When you ponder these various quotations and perspectives, you may imagine a bunch of elite performers sitting around and talking about their biggest failures and most beneficial errors. You can be sure that anyone who has risked and aspired to achieve on a grand scale has also had some substantial calamities. The momentary pain or embarrassment can be overcome with recognition of how it will help you overcome future setbacks. When we reflect on our failures, we can learn some great lessons.

Vignette Three: Not Even a Sporting Chance (Billy Strean)

The Story

It was a rare moment in a university environment: a roomful of academics agreed. Various professors who taught our diverse sport science courses aligned on the notion of an inter-disciplinary senior capping course in which students would integrate their learning of anatomy, exercise physiology, motor learning, biomechanics, and sport psychology, etc. Thus, Dimensions of Physical Activity Performance was created. In its first instance, a bio-mechanist and an exercise physiologist teamed up in what became a frustrating experience. Then a colleague who had
coached at the national level and was familiar with applying the sundry domains had an unsatisfying go at it. Donning my metaphorical red cape, I volunteered to apply my pedagogical super powers. With a bit of unspoken “let me show you boys how it’s done,” I confidently entered the course with some self-proclaimed brilliant strategies for engagement and active learning.

At the time, Shaquille O’Neal was near the peak of his career and was dominating the National Basketball Association but was still incapable of shooting free throws effectively. I concocted what I thought would be a wonderfully stimulating way to address the problem from an array of scientific perspectives. Could it be due to fatigue? Were there issues with his mechanics? How might mental factors impede performance? Could there be anatomical disadvantages for this skill? What kind of teaching or interventions seemed most probable to be useful? As I began to unveil my case study with panache and asked what I thought would be pro forma questions about material students learned in their prior courses, I was completely thrown off guard by the collective inability to recall essential principles or understand them in any kind of applied (let alone integrated) manner. With each successive attempt at a novel approach to pursue the learning outcomes, I was like Edison, discovering just another way that did not provide illumination.

As I felt that I had pretty well exhausted my creativity, (with bruised ego in tow), I had one last idea to try. I showed the students a clip from Jerry Maguire, in which Tom Cruise’s eponymous, and at this point exasperated, sport agent character confronts Cuba Gooding Jr.’s football star, the character Rod Tidwell. The dialogue includes “I am out here for you. You don’t know what it’s like to be ME out here for YOU. It is an up-at-dawn, pride-swallowing siege that I will never fully tell you about, ok? Help me ... help you. Help me, help you.” I then turned to the class, having set the context, before showing the clip, of wondering how the course could be improved, and said, “Help me help you. Help ME help YOU.” Just as my confidence in my teaching strategies did not produce the enchanting learning I imagined, this last-ditch effort uncovered little that would be productive in course improvements. I felt like we muddled through the course with relative mediocrity.

**Key Learnings**

Even as I write this, I notice the impulse to emphasize that this happened many years ago, in attempt to look good. This is an issue of ego, as was my confidence (read arrogance) entering the course. Retrospectively, I would say that I did not yet understand that a superficial checklist of courses completed did not give me the important framework of students’ prior knowledge and skills. I was delusional in thinking that I could rely on experience alone to successfully teach this course. As obvious as this context seems for collaboration, I failed to seek out collegial counsel or other support. I wanted to prove to my colleagues and to myself how good I was. To the extent that my actions were about me and not about the students’ learning, it impeded what could have been possible within the context of the course.

**Broader Applications and Reflections**

At a deeper level, I think our collective experiences in attempting this course demonstrate how ineffective our curriculum is at teaching for retention and application. My own discomfort with the information dump approach to education was reinforced and our examples provide more evidence that if you want students to be able to transfer or apply knowledge and skills, that has to be part of the pedagogical method. There are also some ideas to consider from this experience about how faculty often approach our work as if we are separate from students and we enter the world of learning differently from students. While we usually look first to content (course goals or learning outcomes), students usually begin from the perspective of
motivation (instructions and entry point) and exposure (first contact) (Bowen, 2017).

Conclusions

We believe that teaching is a human endeavour. We all bring concerns, considerations, and vulnerabilities on our journey with students. Our experiences suggest that being critically reflective about the actions and events of teaching and not personalizing failure or diminishing ourselves is important for our growth and for our students’ learning. When we are transparent about our humanity and we model generative approaches where we improve our practice as a result of our errors, we help students to be more open to exploring and experiencing natural and necessary mistakes along their path.

Avoidance of failure can make our teaching stale and it can deprive our students of innovative approaches and richer experiences. When we allow ourselves the freedom to dare greatly, we may have a train wreck or two, yet we may also pave the way to new adventures in teaching and learning.

References


Biographies

Billy Strean is Professor and 3M National Teaching Fellow (2011) in the Faculty of Kinesiology, Sport, & Recreation at the University of Alberta. He is also Chief Joy Infuser at Adventures in Joy. Billy loves the classroom, where he gets to take a break from being a train wreck.

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Multidisciplinary Team-Based Model for Faculty Supports in Online Learning

Bev King, Christina Dinsmore, Antoinette Thornton, Wanda Beyer, Keren Akiva, CJ Dalton

This study examined the experiences of three new online instructors supported by a multidisciplinary, team-based model of course development and how their experiences may transform their knowledge of teaching and learning. In-depth, individual interviews with instructors during the course development process provided insights into participants’ perspectives. Analysis reveals faculty reflected positively on the overall development process and that they intend to incorporate new understandings in future course design, suggesting that the model provides a solid foundation for online course development and faculty support. Based on a cross-case analysis using Cranton’s (2002) adaptations to transformative learning theory, findings indicated the importance of critical reflection and discourse during the course development process. Lastly, the need for development teams to acknowledge time-management concerns and to consider instructors as novice learners is recognized as an essential requirement to online course development.

Multidisciplinary Team-Based Model for Faculty Supports in Online Learning

While online learning was previously explored only by “venturesome instructors” or “early adopters” (Wilson and Stacey, 2003, p. 543), it is now widely accepted in mainstream education (Donovan et al., 2018). With the recent increase in online course offerings, academics are now challenged to be experts in both on-campus and online instruction. One of the main barriers to teaching online is a lack of adequate training and support to transition from teaching in the face-to-face environment to online learning (e.g., Bower, 2001; Covington, Petherbridge, & Warren, 2005; Donovan et al., 2018; Kebritchi, Lipschuetz, & Santiague, 2017). These supports help to overcome attitudinal barriers toward online teaching, and provide the skills and knowledge required to enable stronger pedagogical and technological course design. Empowering faculty to make the leap to online design and delivery is a complex endeavour, requiring focused interventions that mitigate instructors’ concerns and enable a shift from faculty teaching to student learning (Allen, 2017; Barker, 2003; Brown, 2016; Giovanni & Tesone, 2004; Kraglund-Gauthier, Chareka, Orr, & Foran, 2010; Riches & Benson, 2011).

The primary purpose of this qualitative study is to explore how three new online instructors experience a multidisciplinary team-based faculty support model, and how these experiences may be described as transformative with respect to their pedagogical knowledge of teaching and learning. A secondary goal is to inform the enhancement, formalization, and documentation of a team-based model of faculty support for online course development. Research questions include the following: What are the experiences of instructors developing online courses with a team-based faculty support model? How might participants’ experiences be understood using Transformative Learning Theory or related models (Cranton, 2002; Mezirow, 1996)? What recommendations can be made for enhancing a team-based approach to faculty supports in online course design?

The Multidisciplinary Team Approach to Online Course Development

Quality online course development is a “complex endeavour … requiring highly organized, concerted effort from many players” (Caplan, 2004, p. 186). The multidisciplinary team approach used in this study provided course design and online pedagogy expertise from many players, such as faculty members (as subject matter experts), instructional designers, and learning management systems specialists. The design and development process includes four distinct and iterative stages, tailored to the specific needs of the course and faculty member:

1. Planning and initial development: A plan and timeline for each stage of development are determined. The syllabus is created by the instructor and the instructional designer and assessed by an external reviewer using the Quality Matters framework (Quality Matters framework is a set of quality expectations for online and blended courses in higher education) This stage typically takes about a month.

2. Beta-testing: A complete module of material and activities is developed and is beta-tested online. This stage takes approximately a month.

3. Course development: Using the feedback from beta-testing, the team designs, develops, reviews, reflects, revises, and finalizes course materials and activities for the remaining modules. This stage is extensive and takes a minimum of three to four months.

4. Quality assurance review: The development process culminates in all members of the design team (plus additional stakeholders) reviewing and revising the course, using
Faculty Supports in Online Learning

criteria from Quality Matters. Typically, this stage requires a month.

This design process is complex, as the instructional designer and the team attempt to achieve several goals at once, from orienting the faculty member to the process of course design and development to providing pedagogical and technical training to the faculty member.

Methodology

This research study used a case study methodology to capture the in-depth experiences and multiple perspectives of three instructors (Stake, 2000). With clearance from the General Research Ethics Board at the university, the study generated three cases of faculty members through purposive sampling. These faculty members, who were new to online course development and instruction, were scheduled to participate in the course design process during the nine-month period allocated to data collection. A research assistant was responsible for data collection to reduce bias and mitigate the possibility that faculty members may feel judged on their knowledge of pedagogy (Kreber, 2004). Each participant's course development project began and concluded with a 45-minute interview. Between these start and end points, participants met regularly with their course development teams (the number of meetings for each participant varied from 10 to 14, depending on the project plan). Following each individual course development meeting, the participant was interviewed, and a script was used to ensure consistency across interviews and to elicit context and deeper understanding of their experience and pedagogical knowledge, attitudes, and behaviours. Interview data were analyzed both inductively and deductively to capture emergent themes. Interview data were analyzed using an emic approach. A cross-case, deductive analysis was also undertaken using themes from transformative learning theory with Cranton’s (2002) seven facets for transformative learning as a framework.

Case Studies

As mentioned, an emic (or bottom up) approach was initially used to analyze the data. Through this approach, we were able to identify themes in the data and (re)construct a coherent narrative for each of the cases. As such, the case study descriptions in this section represent the participants’ experiences told from their own perspectives, including recommendations for faculty support.

Two major themes emerged during inductive analysis of the case studies: perspectives on pedagogy and online learning and experiences with the course development process. Within the latter theme, additional subthemes emerged:

1. The team as a resource;
2. Sharing control and trusting the team;
3. Time pressures; and
4. Recommendations for faculty support.

Each narrative is introduced with the participant’s background as context and arranged in order of these themes.

Case One: Andrew

Andrew was a long-time university adjunct professor with an infectious enthusiasm for teaching and connecting with students. He had previously used learning management systems to augment classroom instruction but had not developed or delivered an online course before this study. Andrew thought he couldn’t “possibly duplicate that classroom experience.” Andrew believed his role was “about teaching the learner to reexamine and change their capacity... to analyze... to develop a lens.”
Pedagogy and online learning

In designing a course with the development team, Andrew reported that he was “starting from the learning outcomes,” and admitted that “designing it with that in mind and working through the assessments is a different approach,” which was a “big hurdle” for me. Previously, “I would design my lecture with the objectives, but I wouldn’t have done that at the beginning... In designing the syllabus..., I didn’t think a lot about mapping it back.” He came to recognize that there was “some value in just thinking about the end product no matter what the content is... I’m definitely excited.”

Experiences with the Course Development Process

The Team as a Resource: Following his third development meeting, Andrew reported that “they [the team] have all this rich set of things other instructors have tried out.” In subsequent meetings, Andrew said, “I’m getting more information about what some of the options are or opportunities are that I didn’t have before.” As an example, Andrew explained that he presented the team with classroom teaching activities that he wanted to try online and “the team has a solution about how they can actually make it happen.” Overall, Andrew reported having “a richer understanding of the opportunities for multimedia” and of “being much more intentional” about the learning objectives and assessments.

Sharing Control and Trusting the Team: After an early team meeting, Andrew revealed that designing the course had been “a challenge because I don’t control all the pieces.” By his eighth team meeting, Andrew stated, “I have a lot of trust in the process... the core team, we’ve been working together for a while.... There’s a lot of people involved, there’s energy... just a lot of stuff going on, people know their roles, and it’s really cool to watch it come together, because normally, it’s all me.”

Time Pressures: Andrew admitted that mid-way through the development process, he “felt overwhelmed” and wondered “is this all going to get done on time?” He “felt defeated, mostly, because I just couldn’t in the moment imagine how I could resolve what they needed to get done.... It's challenging because the pressure is on, everyone is trying to get things done.” Ultimately, Andrew said that developing his course “has its challenges, but I would do it again.”

Recommendations for Supporting Faculty Members: Andrew would have preferred in the first meetings to have the team “describe the process in its entirety. What’s it going to look like, what are some of the challenges?” In addition, “I would advise more time at the beginning... in orientation... for more clarity of how the team is sharing the work.” Andrew suggested that it would be helpful to have a “checklist” or a way to “conceptualize what the design process is... a schematic way of displaying it in a fairly precise manner... a flowchart or a little video that you... can go back and check.” As a final point, Andrew suggested that “having a faculty member... in some way contribute to that learning curve... [by] being a resource... or having a mentorship opportunity, would be really great” in enhancing the development experience in the future.

Case Two: Beth

Beth was a second-year tenure-track faculty member. Although new to teaching and to online development, she had been a graduate teaching assistant with the Centre for Teaching and Education at her alma mater. Beth remarked that a teaching workshop she had attended for new faculty members when she started her position was mainly “focused towards on-campus delivery” of courses. After delivering an on-campus course for a certificate program the previous year, Beth was, at the time of this study, preparing the same course for a new online offering.
Pedagogy and Online Learning

Beth communicated interest in developing pedagogically sound approaches to course design. Working with the course development team and developing her course for an online classroom triggered reflection on her teaching goals.

When discussing the development of learning activities, such as jeopardy, word puzzles, and branching activities, Beth recalled feeling that she was “heading in a whole different direction . . . which isn’t necessarily a bad thing.” Beth reported that the activities being developed for her course were “more in-depth in terms of pedagogical theory.” Previously, she “didn’t have scaffolding and didn’t try to align assessments with content.” Thinking back to her on-campus course, Beth conceded, “I didn’t incorporate any reflection pieces . . . or any student interaction into the assessment,” whereas now “this online course development [process] is making me think it through.”

Despite these shifts in Beth’s perspectives about pedagogical design, she expressed caution about certain aspects of online learning. She discussed her belief that online courses were “less friendly” compared to on-campus courses, where “you’re teaching in person, it is synchronous . . . so you don’t have to bridge that divide.” She also expressed concern about the responsiveness of online courses, saying that in traditional teaching, “if something isn’t working mid-semester . . ., you can do something to change it, right?” In addition, Beth revealed that during her on-campus course she “was making all the decisions,” whereas “now it is a discussion of what type of assessments are more appropriate for an online environment.”

Experiences with the Course Development Process

The Team as a Resource: Learning about team members’ roles gave Beth a sense of “who I need to turn to, in terms of different tasks.” She described the multidisciplinary team approach as “quite expansive in terms of covering many topics and aspects of course development.”

Time Pressures: Due to other work priorities and family commitments that affected Beth's schedule, course development had to be condensed into four months. Subsequently, she said that “a lot of my anxiety for the course development is in the process of the development itself.” By her sixth of ten meetings, Beth emphasized this time pressure: “What is making my course development tough right now is the time frame.... It’s just the biggest issue.” Being new to the online teaching environment, she said that “the assessments are just more complex.” Yet, because of the time constraints, she was unable to pursue many of the suggested possibilities, such as developing more interactive content. Thus, Beth said that she was working “on the bare minimum of what needs to be done for my course to be operational.... There’s definitely more to be done.”

Recommendations for Supporting Faculty Members: Beth wished she had been given a “cheat sheet” of all the online learning concepts and activities available to her, so she could have “go[ne] through it more in-depth on her own time.” She wanted “something that talks about blended learning or scaffolding or active learning.” Beth also noted that “having a bit more access to visual examples of the end product” would have also enabled her to come to the meetings “a little more prepared.”

Case Three: Grace

Grace holds an advisory position with university administration, and admitted she “had no experience with online course design, and I had very little experience teaching at all.... I just agreed to develop and teach this course and [felt] honored to do so.” Being unfamiliar with both face-to-face and online course development, Grace also had minimal exposure to learning management systems. “I was a
moldable piece of clay,” Grace said. “I had no preconceived notions about how courses should be developed and I didn’t need to be talked out of my deep expertise in traditional course development.”

**Pedagogy and Online Learning**

In her exit interviews, Grace reported a perspective shift in the way that she thought about course design, learning outcomes, and assessments. In the past, she developed content for a lecture by asking herself, “What is it that I know, that I want [students] to know?” As opposed to “What is it that we want them to be able to do? And therefore, what do they need to know?” After only a few meetings with the development team, Grace remarked that she found it “helpful” to “tie the lecture content to the assessment and back to the learning outcome.”

While Grace appreciated the opportunities that online teaching and learning presented, she believed that “some things are just never going to be quite the same as a traditional lecture course.” Grace admitted, “I don’t have a script when I teach.... I wing it.” She “really feeds on the nervousness that giving a lecture to a live audience develops,” so “the thing I found most difficult” about creating a podcast was “to sit in an empty room” and generate that energy on her own. Furthermore, with respect to activities and assessments, Grace felt that “online discussion forums will never compare to a really vibrant open discussion . . . where you can see each other’s body language.”

After her sixth team meeting, Grace said, “I definitely have a broader perspective on the types of assessment tools that are available . . . the stuff that can be done online. It’s maybe one area that going online actually expands what you can do as opposed to restricting it.... The online environment provides some real opportunities that don’t exist in the traditional lecture course.”

**Experiences with the Course Development Process**

**The Team as a Resource:** Clearly enthusiastic, Grace recalled that “it was really eye opening, just the number of different ways the assessments could be done.... It is really cool.” Following a later course development meeting, Grace reported that the team was “discussing evaluation context, appropriate evaluation, scalable evaluation. I was really impressed with the team.... They were all quite excited . . ., and we were able to decide how the assessments could be more directly related to what we’re trying to teach: resilience.”

**Time Pressures:** Grace said that “time pressure got really heavy..., and it starts losing the fun factor.... We should have started earlier in the calendar.... I would maybe do a week of content every two weeks.”

**Recommendations for Supporting Faculty Members:** Grace felt that developing an online course with the team “was a bit overwhelming earlier in the process; I didn’t even know what questions to ask.” Grace added, “It would have been good to have known the full suite of technological tricks.” She confirmed that she would have preferred a “broader discussion of the pitfalls and possibilities of going online” in an earlier meeting.

**Summary of Cases**

There were evident commonalities in the way participants viewed the course development model, experienced the process, and changed their perspectives throughout. In terms of the team-based model, participants referenced the team as a resource—a source of experience and expertise—and viewed this resource as critically important to their course development success. Participants reported that this process allowed them to revisit (and in some case challenge) their assumptions about teaching and learning. To varying degrees, all participants spoke to feeling overwhelmed during the initial stages of the
development process, and to being challenged by pedagogical concepts and the application of online design principles.

**Cross-Case Analysis**

We recognize that although learning to design, develop, and deliver courses online may be a “catalyst for faculty to reflect on and evaluate their current teaching practices” (McQuiggan, 2012, p. 27), we cannot teach transformation (Cranton, 2002, p. 70). Thus, the multidisciplinary team aims to foster a supportive environment for faculty members to challenge their “beliefs, assumptions, and perspective” (Cranton, 2002, p. 66), and we hope to better support moments of critical learning in which faculty members reflect on and revise assumptions about teaching and learning online, and pedagogy in general.

Cranton’s (2002) model acts as a guide for deductive analysis of the data in this study. While we explored other adult learning theories, such as social learning theories, as potential frameworks for this study, these theories did not capture the “deeply felt” changes that had been anecdotally reported by faculty members supported by the team-based support model and observed by instructional design teams (King, 2004, p. 168). In the following sections, we compare facets to the data that emerged from participant interviews.

**Activating Events**

An “activating” event, often referred to as “disorienting” (Mezirow, 1997), is one in which dialogue and fresh thinking are sparked as learners become aware of discrepancies between their viewpoints and alternative perspectives (Cranton, 2002). Activating events have also been described as “teachable moments” (Keen & Woods, 2016).

Activating events across the cases were experienced when typical face-to-face approaches to course content and delivery required adaptation to suit the online environment. Beth noted her difficulty in adapting three-hour lectures to chunked units of learning (e.g., several 10-minute podcasts). Specifically, the need to alter both the structure of how she delivered content and the amount delivered to optimize students’ cognitive processing challenged Beth’s prior assumptions about her role as teacher, in which she saw herself as responsible mainly for imparting knowledge in a traditional lecture. Andrew had to find alternative ways to “connect” with his students, provide spontaneous feedback, and facilitate learning. “It’s all stuff I haven’t tried before and it’s really cool... It pushes me outside of my comfort zone, so I’m excited and scared.” Grace compared her preferred “public speaking style” with a live audience to “speaking to an empty room” for her online course. Having never previously taught a complete course, Grace also admitted to being quite “at sea” at the beginning of the online course development process, and specifically when exposed to new and unfamiliar approaches for pedagogy.

**Assumptions**

In *Teaching for Transformation*, Cranton (2002) notes that “we expect what has happened in the past to happen again” and that “it is easier and safer to maintain habits of mind than to change” (p. 65). Andrew and Beth articulated that they believed online teaching and learning to be “less friendly, with constraints,” and Grace expressed assumptions that online learning was “a bit restrictive” due to lack of “face-to-face interaction.” Beth also expressed feeling perplexed about needing to “come up with assessments before content, revealing her assumption that online strategies minimized traditional on-campus assessments.

According to Cranton (2002), learners may also recognize shifting or new assumptions as transitional “moments” of actual learning. Andrew explained that his “biggest challenge” was “suspending” his assumptions about online courses and the
“translation” of his on-campus course to the online course design. In her final interview, Grace articulated a new belief that teaching online “expands what you can do, as opposed to restricting it” and Beth stated that she would definitely include opportunities “for more student engagement activities.”

Critical Reflection

Critical reflection was evident in how participants reported their learning and work processes, early assumptions, reasons for feeling discomfort, and resistance to giving up control. For example, Andrew and Grace revealed that their interest in being able “to connect with” and be responsive to students, and to have “real-life activities” in their courses came from a need to be energized by their students through invigorating lessons and to gain satisfaction and reassurance from student feedback. In her on-campus course, Beth “was making all the decisions” and choosing the assessments she “wanted to do.” During the course development process, Beth struggled to use assessments “more appropriate for an online environment” but came to “understand the pedagogical reasons” behind them. Across all cases, critical reflection provided the opportunity for self-awareness, with participants examining previous assumptions to develop a meaningful learning experience for their online students.

Trust

As a quality that enables authentic communication, trust may be viewed as a necessary condition to being open to alternative ideas and thus transformation (Eisen, 2001). Cranton (2002) alludes to the role of trust in noting that it is challenge that “underlies teaching for transformation. Although challenge must be combined with safety, support, a sense of learner empowerment” (p. 66). In this study, needing “to trust the team” was articulated as important. At the same time, participants were challenged to find a balance in giving over some control while maintaining their academic identity and accountability for their teaching.

Critical Discourse

In these case studies, participants reported learning about new ways to approach course design, learning outcomes, assessments, and activities with course design teams facilitating the construction of knowledge in every aspect of the course. Andrew and Grace discussed the team’s explorations of student engagement activities. Beth expressed her understanding of the pros and cons of varying design approaches as they were considered and weighed with her design team. Across all three cases, these instructors were engaged in increasingly authentic critical discourse about their own and others’ roles, the opportunities and limitations for course design, and alternative approaches to creating their courses.

Testing or Acting on Revisions

When learners have opportunities to test and act on their revised assumptions or altered perspectives, they are more likely to adopt and apply a new paradigm (Cranton, 2002; Cranton & Taylor, 2012). Although participants reported feeling stress in applying new perspectives, each acknowledged that they tested and revised their assumptions in response to newly acquired knowledge, with ongoing support from the team. Through the experience of developing her course with the team, implementing new ideas, and receiving feedback, Grace said that she had a “deeper understanding” and a “better perspective” of what online course development “looks and feels like.” Likewise, the application of new perspectives and the quality assurance process brought Andrew “a richer understanding of the opportunities for multimedia,” and he became “much more intentional” about the learning objectives and assessments.
Summary of Cross-Case Analysis

It is evident through cross-case analysis that participants’ experiences of online course development with a support team was an activating event that afforded multiple opportunities to reflect and to identify and revise current assumptions. Critical discourse about the opportunities and limitations presented by online learning played a pivotal role in the process. Supporting and empowering participants established trust, which allowed them to be open to alternative ways of thinking about teaching and learning. As faculty members tested and applied new perspectives during the course development process, they deepened their understanding, gained confidence and expertise, and demonstrated evidence of transformative learning.

Limitations

While the goal of the research project was to describe the experiences of faculty members undertaking a course development process, we also recognize that using a qualitative research design is not without critique (e.g., Cranton, 2013; Cranton & Taylor, 2012; Newman, 2012). For example, Cranton (2013) argues that a case study approach with a subsequent thematic analysis will not produce new results, but more of the same. With “subjectivity and objectivity central in understanding different approaches to research” (Cranton 2013, p. 42), alternative frameworks, such as critical or positive paradigms, may be better suited to analyzing the breadth and depth of transformative learning theory in practice.

While the case study participants provided rich insights about their experiences, using this approach has further limitations. The case study of the development of three online courses limited the range of variation availability (Stake, 2010). Our participant selection was narrow due to the constraints of selecting participants that met our criteria and collecting data within a nine-month period to align with the course development cycle.

Recommendations

We recognize that although learning to design, develop, and deliver courses online may be a “catalyst for faculty to reflect on and evaluate their current teaching practices” (McQuiggan, 2012, p. 27), we cannot teach transformation (Cranton, 2002, p. 70) nor ensure that a faculty member will experience transformation. Having said that, given the relationship between the need for support and the adoption of research-based practices in online learning (Grover, Walters, and Turner, 2016), developing an online course within a multi-disciplinary team-based model can provide a supportive environment for faculty to challenge their “beliefs, assumptions, and perspective” (Cranton, 2002, p. 66). Based on this study, the following recommendations are made:

1. Onboarding: At various points in the study, participants articulated feeling challenged by pedagogical concepts in online course development and overwhelmed with the many tasks and information being presented. The provision of an onboarding program with explicit use of pedagogical constructs that anchor and scaffold learning would support new faculty members’ orientation to online learning and course design. To minimize cognitive overload, this
onboarding program would be separate from the course development process.

2. Critical Self-Reflection: The modelling of critical self-reflection and establishing the practice as a group norm is a pragmatic approach to support transformative learning (Cranton, 2001, 2002). The interviews conducted for this study provided the impetus and a sounding board for faculty to reflect on, test and revise assumptions. To promote reflection and support faculty through moments of critical learning, time and space in the course development process could be intentionally allotted to allow for dialogue that supports faculty members in questioning and examining assumptions (Cranton, 2002). The development of a peer-mentor program may also facilitate critical discourse and enhance subsequent development experiences (Covington, Petherbridge, and Warren, 2005; Grover, Walters, and Turner, 2016).

3. Trust: Participants discussed their openness to new pedagogical approaches in the context of trust in their team. In order to foster an atmosphere of trust as a necessary condition for transformation (Eisen, 2001), the team must protect the vulnerability of novice faculty members who have confidence in their discipline but not necessarily in pedagogy (Campbell et al. 2009). To do this, the design team must be cognizant that they are interacting with a faculty member who may be experiencing a challenging role reversal, and “view the work that they do from an adult learning prospective” (McQuiggan, 2012, p32).

4. Workload and Time Management: Participants in this study thought they understood the time and preparation required for on-campus course delivery, yet were challenged by the work required to complete all development prior to the start of term. The additional complexity of faculty members’ need to balance other commitments added further stress to the process. To address these challenges, more consideration should be given to workload and time requirements, both in scheduling development projects and in onboarding faculty members.

Conclusion

This study examines the pedagogical journey of three new online instructors participating in an intensive online course development process, while supported by a multidisciplinary team. Findings revealed that faculty reflected positively on the overall development process and intend to incorporate elements into future course design, suggesting that the model in its current state provides a solid foundation for online course development and faculty support. The experiences reported by the faculty align with Cranton’s model of Transformative Learning (2002) and suggest that faculty experienced an element of transformative learning during the course development process. The analysis also revealed opportunities where enhancements to the model would further empower faculty to gain confidence in online design. Continuing to engage with faculty moving forward would contribute to an understanding of how the model of support used in this study could be further developed.

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CJ Dalton was the research assistant on this project.
Section IV
From Perception to Practice: A Qualitative Exploration into Institutional Teaching Culture

Lindsay Shaw, Kristin Brown, Donna Ellis, Peter Wolf, Debra Dawson, Lori Goff, Erika Kustra

Teaching culture is the product of a dynamic interplay among the embedded patterns, behaviours, values, beliefs and ideologies about teaching and learning within and across the many microcultures that make up a university. Educational researchers from across Canada developed a set of Institutional Teaching Culture Perception Surveys (ITCPS) to gain insight to an institution’s teaching culture at a particular point in time. Staff, faculty, and students from two institutions provided comments through an open-ended survey and focus groups, answering the question “What would indicate to you that teaching matters at your institution?” Aligning with the six ITCPS levers, the results identified both barriers and pathways to a strong institutional teaching culture, highlighting strategic priorities, assessment methods, effective pedagogy, supportive infrastructure, engagement opportunities and public recognition.

Institutions have their own complex and unique culture around teaching which consists of embedded patterns, behaviours, shared values, beliefs, ideologies (Cox et al., 2011; Kustra et al., 2014), and micro-cultures that exist within and between departments and faculties, students and staff (Mårtensson & Roxà, 2016). Institutional culture is continuously evolving in response to new generations, subject areas and pedagogical innovations. With these continual shifts, teaching
culture has been difficult to assess. Yet its assessment is important because the extent to which an institution values teaching can impact critical outcomes such as student learning (Cox et al., 2011), engagement (Grayson & Grayson, 2003) and retention (Berger & Braxton, 1998) as well as faculty motivation and behaviour (Feldman & Paulsen, 1999). Similarly, a positive organizational culture can increase job satisfaction and commitment (Lok & Crawford, 2004), ultimately leading to happier and more engaged employees, higher retention rates of these employees, and a more financially productive workforce (Harter, Schmidt & Keyes, 2003).

Eleven educational researchers from nine Canadian institutions have developed a set of three Institutional Teaching Culture Perception (ITCP) surveys, which capture a snapshot of an institution’s teaching culture at a particular point in time from the perspectives of educational staff, faculty and students. Based on the framework of Hénard & Roseveare (2012), the research team determined that there are six overarching levers that are important for a strong institutional teaching culture. On the survey, these levers are made up of several items known as indicators. Indicators can help reveal the quality of an institution’s teaching culture and can demonstrate the current state and the progress needed to achieve a desired outcome (Chalmers, 2008; Kustra et al., 2014; Kustra et al., 2015). Taken together, these indicators allow an institution to recognize the presence or absence of the levers, capturing the institutional teaching culture at that point in time. The levers are further described in the sections below.

**Lever 1: Institutional Strategic Documents and Initiatives Prioritize Effective Teaching**

What senior leaders highlight in their public initiatives and strategic documents help to shape the institution’s identity and create a shared culture of value around community, research and teaching (Ginsberg & Bernstein, 2011). Clear strategic plans around teaching and learning symbolize that teaching matters along with research, that efforts around cultural change exist, and that policy decisions and institutional funding prioritize teaching (Gibbs, Habeshaw & Yorke, 2000; Gibbs, Knapper & Piccinin, 2008). With such massive implications, lever one addresses the need for institutional strategic initiatives to prioritize effective teaching. Disseminating this message top down from leadership to individual teaching departments can facilitate more conversations around teaching and educational development (Major & Palmer, 2006; Roxå & Mårtensson, 2016), creating a space to exchange best practices and increase teaching networks (Williams et al., 2013).

**Lever 2: Assessment of Teaching is Constructive and Flexible**

The call for more robust evaluations of teaching has a long history (e.g., Association of American Universities, 2013; Arreola, 2007; Centra, 1997; Centra & Gaubatz, 2000; Wright et al, 2014). In Canada, current trends include the recent arbitration at Ryerson University that recommended comprehensive teaching dossiers be used to measure teaching effectiveness for promotion or tenure decisions rather than only student evaluations of teaching (Kaplan, 2018). The second lever for an effective teaching culture addresses teaching feedback and recommends that teaching be assessed in multiple ways through student evaluations of teaching, teaching dossiers, peer review, and from multiple perspectives from students, colleagues, professional staff, so that the feedback is meaningful and constructive.
Lever 3: Effective Teaching is Implemented

Student learning is arguably most impacted by the teaching that occurs in a classroom. In this lever, an institution that values teaching should have instructors who not only implement effective teaching in the classroom (e.g., by adopting a variety of approaches and using feedback), but also work to develop their own teaching practices (e.g., by engaging with teaching centres and doing scholarship of teaching and learning). This lever is closely tied to Lever 2 since constructive and flexible assessments of teaching can help instructors identify both areas of strength and those needing further development. Additionally, the institutional messaging (Lever 1) also impacts how effective teaching is implemented (Riddell & Haigh, 2015). For instance, in research-intensive universities, faculty members might be encouraged to focus on their research as opposed to developing their teaching. As such, the commitment to effective teaching is ultimately placed on individual instructors instead of their departments or institution (Jawitz & Perez, 2016).

Lever 4: Infrastructure Exists to Support Teaching

Appropriate infrastructure and resources (Lever 4), can help facilitate the implementation of effective teaching (Lever 3) by allowing faculty to reflect on new evidence-based pedagogy (Association of American Universities, 2017). Classroom design and the available pedagogical tools have a direct impact on students’ learning experience and, if designed carefully, can promote active learning and student-faculty collaborations (Jamieson, 2003; Finkelstein, Ferris, Weston & Winer, 2016). Lever 4 addresses such infrastructure and recommends that institutions have adequate learning space (e.g., movable chairs and sufficient space) and resources to support collaborative teaching methods and technology-enabled learning, as well as resources and support for instructors to improve their teaching. Similar to previous levers, appropriate infrastructure and funding for new teaching spaces is directly influenced by senior leadership (Lever 1).

Lever 5: Broad Engagement Occurs Around Teaching

An institution that values teaching should have opportunities for broad engagement around teaching by involving students, alumni, community members and professional staff in teaching activities (Lever 5). For instance, students should have a voice in the decision-making process about curriculum, teaching assistants provide effective support for student learning, and collaborative approaches to the scholarship of teaching and learning are valued (Miller-Young et al., 2017). Another form of broad engagement is having alumni, community members and professional staff provide service-learning opportunities or educational talks. Multi-faceted learning opportunities should exist beyond the classroom and through a range of mechanisms (e.g., hallway conversations, department meetings, conferences, and peer observation).

Lever 6: Effective Teaching is Recognized and Rewarded

As identified in Lever 1, institutions that value teaching establish a culture that recognizes teaching. Administrative leaders, deans and departmental chairs play a key role in sharing this message not only in institutional documents, but also in day-to-day activities and celebrations (Gibbs, Knapper & Piccinin, 2008; Roxå & Mårtensson, 2016). This recognition of teaching should begin during the hiring process and continue throughout an
instructor’s career (Association of American Universities, 2013; Dennin et al., 2017). With that, this lever addresses the importance of recognizing and rewarding effective teaching through tenure, promotion or performance evaluations, institutional rewards and funding, and public celebrations of teaching accomplishments (e.g., award ceremonies, institutional news). With a push to reconceptualise faculty roles, many institutions have created Teaching Focused Faculty (TFF) who primarily focus on teaching, generally with fewer research and service expectations. Rawn and Fox (2018) found that the most important predictor of TFF valuing their roles was feeling integrated within the larger institutional culture. Institutions recognizing and rewarding teaching success can help demonstrate the value that faculty bring to an institution related to teaching and further strengthen a sense of community around teaching, especially in institutions that are predominantly research-focused.

The purpose of the current research was to explore staff, faculty and students’ perceptions of the teaching culture at their respective institutions, answering the question “What would indicate to you that teaching matters at your institution?”

Methods

As part of a larger validation study, two Ontario institutions invited participation from all instructors, students (undergraduate and graduate), and professional staff engaged in the support of teaching. A random selection of 5000 second- and third-year undergraduate students and a list of staff who supported teaching or learning (e.g., educational developers, advisors, counselors, and technological support staff) were invited to complete the online ITCP survey (See Table 1 for response rates). Each group completed a survey customized for their particular role.

<table>
<thead>
<tr>
<th>Participant Group</th>
<th>Number Invited</th>
<th>Number Participated</th>
<th>Response Rates (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>1279</td>
<td>194</td>
<td>15.2%</td>
</tr>
<tr>
<td>Faculty</td>
<td>2480</td>
<td>465</td>
<td>18.8%</td>
</tr>
<tr>
<td>Students</td>
<td>13260</td>
<td>1983</td>
<td>15%</td>
</tr>
</tbody>
</table>

Responses from all survey participants were analyzed for the open-ended question, “What would indicate to you that teaching matters at your institution?” The survey for educational staff was new. Consequently, educational staff could opt to participate in a focus group after the completion of the survey. The purpose of the focus groups was to get feedback on the surveys and probe further into the teaching culture indicators at their institution. The focus groups used the same protocol, but different facilitators resulted in slight differences in the probing questions. For this paper only responses about the indicators from the educational staff focus groups were included in the analysis in addition to open-ended survey comments. Both the institution and the participants’ roles were de-identified prior to analysis.

The focus groups and open-ended survey comments were transcribed from a constructionist perspective (Burr, 1995) using theoretical thematic analysis. Themes were explored in an inductive manner, coding specifically for the research question employing Braun and Clarke’s (2006) five phase model:

1. Becoming familiar with the data
2. Coding
3. Generating themes
4. Reviewing the themes
5. Naming and defining the themes

Several revisions were done during Phases 2 and 3 to ensure that the themes were consistent, distinct and coherent enough to reflect the story of the participants. The themes that were identified in the
qualitative analysis were then compared to the framework of the levers. Through this comparison, visual representations of the data were produced to review and, in some cases, reimagine the relationships among the themes and the levers.

Findings

Two overarching themes, along with several subthemes emerged, specifically the six barriers and the six facilitators that coexist together to create a culture around teaching. The facilitators work to improve the institutional teaching culture but are often halted by the many barriers that oppose such cultural change. In this analysis, example quotes from the participants may highlight a positively framed facilitator or a negatively framed facilitator, the latter suggesting that although it was deemed as important, it is missing from their respective institution. Overall, the subthemes align closely with the six levers of the ITCP surveys and are presented accordingly (See Figure 1).

Table 2. Barriers and Facilitators

<table>
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<tbody>
<tr>
<td>Barriers</td>
<td>Misalignment of Institutional Image</td>
<td>Lack of Comprehensive Student Evaluations of Teaching</td>
<td>Instructional Commitment to Effective Teaching</td>
<td>Disproportionate Distributions of Resources and Support</td>
<td>Departmental Silos</td>
<td>Prioritization of Research</td>
</tr>
<tr>
<td>Facilitators</td>
<td>Senior Administrative Support</td>
<td>Accessibility and Usability of Student Evaluations of Teaching</td>
<td>Diversified Learning Experiences</td>
<td>Spaces that Inspire Learning</td>
<td>Opportunities for Breadth of Engagement</td>
<td>Public Celebrations of Teaching Success</td>
</tr>
</tbody>
</table>

Lever 1: Institutional Strategic Documents and Initiatives Prioritize Effective Teaching

Participants highlight both the presence and absence of Lever 1: Institutional Strategic Documents and Initiatives Prioritize Effective Teaching. A key barrier is a misrepresentation of their institutional image, which is often characterized by the values of senior administration and the type of legacy they want to leave. This public identity of the institution is not always representative of how the institution is actually resourced and operated on a day-to-day basis. For instance, in one of the focus groups, a participant describes the “glossy brochures” used for international recruitment initiatives. Although the...
initiatives might be successful in recruiting new students, the resources do not necessarily reflect the reality of how those students are supported once they get on campus. Other participants share similar points regarding administrative visions and speeches. Despite this barrier, participants do suggest that senior administrative support is an important facilitator for a strong institutional teaching culture. Instructors, especially early career educators, tend to follow the expectations outlined by their department chairs or deans. Having leaders who express and support teaching initiatives—in messaging, budgets and strategic plans—set a precedent for teaching expectations and how teaching contributes value to the culture of the institution.

Table 3. Sample Quotes for Lever 1

<table>
<thead>
<tr>
<th>Barrier: Misalignment of Image</th>
<th>Facilitator: Administrative Support</th>
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<tr>
<td>“[institution name] is a research institution and is run accordingly despite the fact that a large percentage of the operating budget comes from undergraduate tuition. Despite what the university executives say in their speeches and promotional materials, I have never seen any indication that the university values quality teaching.” - Participant 1, Survey</td>
<td>“It’s not really addressed in the strategic plan now that I think back to when I read it. You just made the assumption that it’s something the University cares about, but it’s not detailed in the strategic plan or as a central focus, which hopefully could be a measure going forward.” - Participant 3, Focus Group</td>
</tr>
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<td>“For every new senior administration, the focus is on their legacy and what they’re leaving, and they have a vision and it may or may not coincide with what is actually happening on the ground.” - Participant 2, Focus Group</td>
<td>“Clear and inspirational statements from the University leadership that teaching matters and that the following actions taken by instructors are not only valued, but also expected.” - Participant 4, Survey</td>
</tr>
</tbody>
</table>

Lever 2: Assessment of Teaching is Constructive and Flexible

Similar to the call for more robust teaching evaluations noted in previous research (e.g., Arreola, 2007; Centra, 1997; Centra 2000; Wright, et al, 2014), the participants in this study identify the lack of comprehensive teaching evaluations at their institution. A more comprehensive approach would include multiple data sources, including self-evaluations, and peer and students’ feedback, presented in a teaching dossier. The current evaluations and the mechanisms being used to gather the evaluations are described as difficult to obtain, vague and unsupportive (See Table 4). For the latter, Participant 6 refers to examples of instructors early in their careers fearing low evaluation scores, recognizing the impact that might have on achieving tenure. That fear can ultimately limit the number of pedagogical risks those instructors would normally implement in the classroom, taking away a valuable learning experience from students. Additionally, most of the questions on standardized evaluations are vague and provide little direction on how an instructor can improve their teaching (Participant 5).

In addition to the comprehensiveness of the evaluation system, the use and the accessibility of the evaluation feedback are noted as important facilitators. As a frontline worker, Participant 8 does not know if students have access to the evaluation
results, suggesting that discussions around teaching evaluations are not widely understood or discussed across the institution. Similarly, since most standardized student evaluations of teaching are summative (Participant 7) students do not get to see whether their instructors actually implement their feedback, suggesting the need for more formative feedback opportunities. These teaching evaluations are particularly important for graduate students who often have little to no training in effective teaching practices (Participant 9).

Table 4. Sample Quotes for Lever 2

<table>
<thead>
<tr>
<th>Barrier: Lack of Comprehensive Teaching Evaluations</th>
<th>Facilitator: Usability and Accessibility of Student Evaluations of Teaching</th>
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<tbody>
<tr>
<td>“I don’t know [in my department] nobody sits in your classroom to give you feedback on your communication style in the classroom…the questions on the [student evaluations of teaching] are so vague. They don’t really provide a lot of direction in terms of improving that.” - Participant 5, Focus Group</td>
<td>“At my institution, the results of teaching evaluations are accessible to students. I have no idea. I’ve been in the same classroom for 15 years, but I’m a frontline worker. How do I know if they get to see them? Nobody tells me.” - Participant 8, Focus Group</td>
</tr>
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<td>“The feedback mechanisms need to be more comprehensive because professors and instructors are not going to go out on limbs unless they are supported and protected.” - Participant 6, Focus Group</td>
<td>“I know for graduate students they don’t get that end of term evaluation. How do the graduate students get evaluated so that they can put their dossiers together when they’re applying for positions?” - Participant 9, Focus Group</td>
</tr>
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<td>“More invitations to give feedback outside of end of course evaluations.” Participant 7, Survey</td>
<td>“Anything [instructors] may have updated or changed because it didn’t work so well in the current class. I would like to see whether or not the feedback given was taken into consideration.” - Participant 10, Survey</td>
</tr>
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</table>

Lever 3: Effective Teaching is Implemented

Discussions around effective teaching often point to an instructor’s individual commitment to the students and their learning experience. Participants 11, 12 and 13 all present examples of ineffective teaching practices that demonstrate a lack of accountability, effort and encouragement (See Table 4). In these examples and those from other participants, commitment to effective teaching is impacted by several barriers that align closely to the levers: having limited support from departmental chairs or administrators and pressures to focus on research (Lever 1), larger enrollment numbers (Lever 4), limited time to develop best practices (Lever 5) and little recognition (Lever 6).

Having diversified learning experiences that are collaborative and innovative is highlighted as a facilitator for effective teaching. Participants point to examples of experiential learning opportunities, lab demonstrations and pedagogical techniques that differ from the traditional lecture format. Furthermore, they identify the need for more informal opportunities for students to get to know their instructors in order to build rapport and encourage engagement with course material outside...
of class. These strengthened student-teacher relationships encourage students to be more active learners by diminishing power differentials and making students more comfortable to participate in the learning process. These recommendations are all consistent with principles long associated with effective undergraduate teaching (Chickering & Gamson, 1987).

Table 5. Sample Quotes from Lever 3

<table>
<thead>
<tr>
<th>Barrier: Instructional Commitment</th>
<th>Facilitator: Diversified Learning Experiences</th>
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<tr>
<td>“In another department, I have heard a professor say they try and teach as poorly as possible so that the enrollment will be lower next year and there will be less to grade. That is reprehensible and yet allowed to exist. How do you make that kind of professor teach and more importantly teach well...They are so poisonous to the system.” - Participant 11, Survey</td>
<td>“You have a very different culture. The students that I have encountered who are from the [science department] speak to the real push towards peer interaction, peer supports, and the willingness to go for help and to receive help.” - Participant 14, Focus Group</td>
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<td>“We claim that we do all the right things, but who is monitoring? I do not see Chairs or Deans monitoring teaching…I hear that some instructors do maybe 1 to 1.5 hours in a 3-hour slot and even that with pictures and photos! That is not teaching. Teaching takes effort and organization and needs clear targets per course.” - Participant 12, Survey</td>
<td>“I think that interacting with students in less formal settings (e.g., going to a drop-in tutoring session in residence, having dinner with students, helping design activities such as campus days) gives instructors a better understanding of their students and helps students see instructors from a different perspective. This knowledge can help the teaching relationship. Instructors will know how to support and challenge their students and students feel more comfortable asking questions and being active learners.” - Participant 15, Survey</td>
</tr>
<tr>
<td>“I would say encouraging students to participate in the class. I was at [name of institution] years and years ago and I remember that there was a professor who said on the very first day of class, many of you are going to fail. So, if you don’t want to do the work, get out. That’s not very encouraging…. Sure enough, half of the class left.” – Participant 13, Focus Group</td>
<td>“Departments should be actively marketing courses as learning opportunities rather than focusing on the ability of students to achieve high marks in the course. Greater attention to alternative teaching methods, especially when it comes to evaluations. While teachers must focus on developing skills essential to the discipline, they must also allow for students to express their learning in various and diverse ways.” - Participant 16, Survey</td>
</tr>
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</table>
Lever 4: Infrastructure Exists to Support Teaching

Given the various implications of space on active learning and student-faculty collaborations (Jamieson, 2003; Finkelstein, Ferris, Weston & Winer, 2016), an important facilitator of teaching culture is having spaces that inspire learning, with pedagogically-sound timetables, appropriately sized classes and functional designs that are co-developed by instructors, students and staff.

A major barrier is the disproportionate distribution of these spaces that inspire learning. Participants identify that their institutions do not have enough supply to fulfill all of the student demand (See Table 5). In fact, Participant 17 expands on this issue even further, implying that some groups are given priority or access to teaching space over others. Having access to appropriate classrooms or having class sizes that are too big not only limits the active learning opportunities an instructor can have, but it also becomes nearly impossible for faculty to get to know their students and provide constructive feedback (Participant 22), greatly impacting the amount of effective teaching that can be implemented (Lever 3).

Table 6. Sample Quotes from Lever 4

<table>
<thead>
<tr>
<th>Barrier: Disproportionate Distribution of Resources and Support</th>
<th>Facilitator: Spaces that Inspire Learning</th>
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<tbody>
<tr>
<td>In response to prompt 24: at my institution learning space such as classrooms, labs and studios are designed to support learning, [equipped with] moveable chairs, sufficient space, and appropriate tools.</td>
<td>“Teaching spaces need to be flexible, alive with colour and clean. Seating needs to be comfortable and functional technology needs to be current with internet connectivity throughout.” Participation 20, Survey</td>
</tr>
<tr>
<td>“That’s my big bee in my bonnet. I know that those classrooms exist….and I’m never allowed to have them.”- Participant 17, Focus Group</td>
<td></td>
</tr>
<tr>
<td>“The class sizes are growing, the expectation is really reflecting back now on the instructors and the professors and the entire teaching team and that includes TAs. I think that’s why some of them now are in a space where they need to reach out to get some kind of help because they need more resources to be able to do their job.”- Participant 18, Focus Group</td>
<td>“There needs to be more/better space for teaching: stuffy, small, windowless classrooms are soul-sucking to teach in, and while classroom updates/renovations are welcome, undertaking them without bothering to consult with instructors has resulted in rooms that look shiny, but are not functional for teaching.” Participant 21, Survey</td>
</tr>
<tr>
<td>“Appropriate selection of classrooms to match class size, style and type. Often the rooms are not appropriately matched (due to limited availability) and this sometimes impedes the types of activities and discussions that can take place.” Participant 19, Survey</td>
<td>“My teaching is compromised by the fact that my classes are just too big. I cannot offer enough feedback on written assignments or even get to know my students.”- Participant 22, Survey</td>
</tr>
</tbody>
</table>
Lever 5: Broad Engagement Occurs Around Teaching

Many participants discuss the presence of institutional decentralization, describing the barrier of departmental silos that result in limited collaborative networks and strained communication. Some microcultures within departments that do not value teaching can impede the amount of teaching engagement that occurs not only within a department, but also more broadly throughout the institution. Participant 23 describes the difficulty in finding the right people to advocate for teaching engagement and challenge the negative perceptions of their peers.

Participants also identify the importance of having both formal and informal opportunities for breadth of engagement around teaching. Professional development opportunities are often highlighted as mechanisms to achieve this breadth, including workshops, guest speakers, consultations with their teaching and learning centres, orientation events, mentorship opportunities and hallway discussions with colleagues and students (See Table 6).

Table 7. Sample Quotes from Lever 5

<table>
<thead>
<tr>
<th>Barrier: Departmental Silos</th>
<th>Facilitator: Opportunities for Breadth of Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I find that the silo-ing of effective teachers is also present. There’s a few people out there who are really trying and are really thinking about focusing on teaching and helping to build a positive teaching culture, but you have to go find those individuals and make them your best friends. Then you have to bring in funding so that they can then do something with that because if they have success then some of those other negative peers around them realize ‘Maybe I can do that next time.’”- Participant 23, Focus Group</td>
<td>“In my experience as a graduate instructor, there does seem to be quite a bit of instruction and opportunity for professional development as teachers early in the program. We are also encouraged to seek out these opportunities through the [teaching centre]. However, it would be nice to see more recognition of teaching as important and more opportunities for teaching to be discussed more widely across the faculty.”- Participant 26, Survey</td>
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<td>“I think there should be places that [graduate] students can get [professional development] independent of their department, but I think in some cases departments do a really good job in providing that support and I know in other departments, there’s no support at all.”- Participant 24, Focus Group</td>
<td>“Our institution does a very good job of allowing teaching assistants to teach tutorials/guest lectures to gain the teaching experience and I think this is very important for student learning and graduate student skill development.”- Participant 27, Survey</td>
</tr>
<tr>
<td>“More collaboration between all levels of employees to support a successful and transparent learning environment.”- Participant 25, Survey</td>
<td>“Seminars in which faculty/instructors (not teaching specialists) share their own experience with new teaching methods to their colleagues in a peer-to-peer training fashion.”- Participant 28, Survey</td>
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</table>
Lever 6: Effective Teaching is Recognized and Rewarded

Publicly celebrating successful teachers is identified as the final facilitator with participants noting examples of financial rewards and grants, celebration ceremonies, and spotlight stories on institutional news outlets. The public recognition that teaching matters encourages the implementation of effective teaching (Lever 3) and incentivizes instructors to develop their teaching practices (Participants 32 and 34) by utilizing feedback (Lever 2) and engaging in teaching initiatives (Lever 5).

However, the notion that teaching matters is often overshadowed by the prioritization of research. According to participants, teaching-focused faculty are treated as “second class citizens” and “little coloured blocks on a spreadsheet” since research is the main metric for career advancement (Participant 29) and hiring and tenure decisions (Participant 31). Similarly, strong researchers are offered the ability to buy-out their teaching responsibilities (Participant 30), which not only sends a message that teaching does not matter as much as research, but it also disadvantages the students from learning about new and upcoming research in their field of study.

Table 8. Sample Quotes from Lever 6

<table>
<thead>
<tr>
<th>Barrier: Prioritization of Research</th>
<th>Facilitator: Public Celebrations of Teaching Success</th>
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<tbody>
<tr>
<td>“Faculty and staff are much more likely to advance their careers through research than through their teaching. We should recognize and reward great teachers beyond one-time awards.” – Participant 29, Survey</td>
<td>“I think there’s little reward. So, if you want the people to be here, if you want them to learn about improved teaching and improved methods, it needs to be valued here. If there’s nothing in it for them, why are they going to do it? There’s no carrot. There’s no incentive. There’s not recognition. That’s one of the problems that I think that I’ve seen recently.”- Participant 32, Focus Group</td>
</tr>
<tr>
<td>“In my department we’re constantly discussing teaching loads and it seems that sometimes our best researchers get to not teach and they get to buy out their teaching. That would be an example of a failure because we should always have the smartest, best researchers being the ones teaching our students. I think once you can break down that barrier then it becomes a lot easier.” – Participant 30, Survey</td>
<td>“I have a different take on this. I’ve worked closely with faculty compensation. I feel that financially we reward teaching much more than we reward research. At the [professional school] we kind of have the opposite problem. Everybody wants to teach and we’re not giving out strong research…. that’s unique to the [professional] school.”- Participant 33, Focus Group</td>
</tr>
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<td>“If tenure committees turned down strong researchers with dismal teaching, I would start to believe. If the administration started to actually demand tenure committees demonstrate teaching excellence/ aptitude/ interest in incoming faculty rather than value innovation/research over reasonable teaching metrics.”- Participant 31, Survey</td>
<td>“Better financial rewards for excellent teaching at [university name] would greatly motivate efforts to improve teaching practices.”- Participant 34, Survey</td>
</tr>
</tbody>
</table>
Limitations

The findings described in this research demonstrate the many barriers and facilitators that coexist to create an institution’s culture around teaching. Although the findings align closely with past research and the predetermined levers, there are notable limitations. Only two institutions were involved in the data analysis, representing one region in Canada. Additionally, only one research assistant, who has been involved in the project for several years, was responsible for the analysis. The research team recognizes that bias and a predetermined understanding of teaching culture literature may have impacted the interpretations. In future research, the team plans on doing a more thorough analysis of the open-ended comments, with several coders and data from more institutions.

Conclusion

Overall, staff, students and faculty identify both barriers to and facilitators of a strong institutional teaching culture. These barriers and facilitators align closely with the six levers framing the ITCP surveys which helps to provide support for the utility of the surveys within Canadian universities. In addition, the analysis provided in this paper suggest that the six levers, accompanied by their barriers and facilitators, are not mutually exclusive, emphasizing the complex and multifaceted nature of higher education institutions and the cultures embedded within them.

Participants highlight that institutional culture ultimately begins at the top. Institutions may need to overcome a misalignment of their institutional identity (Barrier 1) by having senior administrative support (Facilitator 1) that prioritize effective teaching in institutional strategic initiatives and practices (Lever 1). In doing so, senior administrators may need to overcome the prioritization of research (Barrier 6) by recognizing and rewarding effective teaching practices (Lever 6) through public celebrations of teaching success (Facilitator 6). The measurement of effective teaching practices needs to be both constructive and flexible (Lever 2), forcing institutions to reconceptualise more comprehensive evaluations of teaching (Barrier 2), and create processes around the implementation of evaluation feedback by instructors and the accessibility of that feedback for staff and students (Facilitator 2). Additionally, institutions need to hold their instructors accountable to the implementation of effective teaching (Lever 3) by ensuring that they are committed to pedagogy (Barrier 3) and are providing diversified learning experiences for their students (Facilitator 3). Yet, infrastructure needs to exist to support teaching demands (Lever 4), encouraging institutions to overcome unbalanced or insufficient distribution of resources and supports (Barrier 4) and create more spaces that inspire learning (Facilitator 4). Finally, it is essential that institutions challenge the silos as the sole way of operating (Barrier 5) by providing a breadth of opportunities (Facilitator 5) for broad engagement to occur around teaching (Lever 5).

Moving Forward

The ITCP surveys provide tools for assessing an institution’s teaching culture from the perspectives of staff, students and faculty. Although the surveys are not yet fully validated, they have launched a conversation around the many facilitators that coexist together within an institution and the many barriers that halt these facilitators from making substantial cultural change. Results from the open-ended survey question, and the inclusion of focus groups following the survey, provide opportunities for rich discussion and examination of trends emerging from the quantitative survey results. The research team wants to continue these conversations as they develop an online repository of identified practices of effective teaching. The ITCP surveys do not just gather perceptions; they can also encourage the exchange and implementation of practices to
help improve institutional teaching culture in order to enhance both student learning and the teaching experience.

References


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Inquire, Imagine, Innovate: A Scholarly Approach to Curriculum Practice

Michelle Yeo, Jennifer Boman, Julie A. Mooney, Andrea Phillipson, Luciana da Rosa dos Santos, Erika E. Smith

This paper describes the development of a three-phase approach our team of educational developers finds useful in curriculum projects in our Teaching and Learning Centre. Informed by the literature on the importance of flexibility and iteration (Knight, 2001; Wolf, 2007) and an orientation towards Appreciative Inquiry (Srivastva & Cooperrider, 1990), we contextualize our work in relation to others in the Canadian educational development landscape. Additionally, we highlight the importance of recognizing micro, meso, and macro levels of influence in institutions of higher education (Poole & Simmons, 2013). We describe our Inquire, Imagine, and Innovate, or 3-I, model for curriculum consultation, positioned by fictionalized vignettes demonstrating how each phase is applied. We conclude the paper by indicating where we are continuing to develop this work.

One of the many roles educational developers undertake is curriculum consultation which includes a broad spectrum of activities from a single consultation with a faculty member working on a course outline, to an ongoing programmatic design or redesign with an entire department. The educational development team within our Teaching and Learning Centre (TLC) regularly engages in such work. In this paper, we describe a model for curriculum redesign that we developed to guide projects that span the curriculum spectrum. Although we intend to share this model primarily with the educational development community, faculty members or teams redesigning courses or programs may also find it useful. Above all, we mean to encourage all people involved in
curriculum development to reflect on the process, as we have found such collaborative reflection valuable to making our tacit knowledge explicit.

Individuals and teams must adapt curriculum design resources to suit their specific institutions and practices. At our institution, we send out a yearly call for formal course and program redesign projects. A committee adjudicates applications based on a set of criteria and grants successful applicants one to two course releases to do the work. The educational development team then works with individuals and departments on selected curriculum initiatives through a formal redesign process, and simultaneously conducts ad hoc curriculum consultations as faculty members request them.

Our work with departmental teams in particular prompted us to develop the Inquire, Imagine, Innovate (3-I) model we describe in this paper. We wanted to refine our curriculum design processes to help us better navigate curricular projects characterized by complex learning and infrastructure, especially those with broader programmatic or institutional implications. We realized we needed an inquiry-oriented approach that engaged the student voice, incorporated all members of the team, helped to resolve intra-departmental differences, and avoided foreclosing too quickly on solutions. Because it captures a dynamic process, the 3-I model allows us to achieve these multifaceted goals. Although we developed this model to guide program-level curriculum redesign projects, it is effective for both small and large-scale projects. We start this paper with a brief description of the literature that informed our approach, highlighting the micro, meso, and macro levels of influence at work in curricular redesign. Next, we introduce the Inquire, Imagine, and Innovate (3-I) model that we developed for curriculum consultation. This model depicts a three-phase process, and we provide fictionalized vignettes of our own practice to serve as examples of how to apply each phase. Finally, we indicate future directions for the model and educational development practice.

Literature Review

Hubball, Pearson, and Clarke (2013) note a scarcity of published scholarship about the theory and practice of program-level curriculum renewal initiatives. Two texts from our earlier work particularly influenced the model we describe in the present article: Knight’s (2001) theoretical exploration of a “process model” of curriculum planning and Wolf’s (2007) description of the University of Guelph’s curriculum assessment and development approach.

Knight’s (2001) approach to curriculum development is especially helpful for moving beyond a rigid outcomes-focused approach that does not always resonate well with faculty. He argues that learning in higher education is complex and requires curricula that are “coherent and progressive” (p. 370). The problem he identifies is that the most common method for achieving coherence is rational curriculum planning, a “systematic approach” that privileges efficiency in its “tight-coupling” of outcomes and their means, leaving no space for creativity or innovation, and no time for the slow learning that a complex education demands. Knight proposes that we take literature on complex systems seriously, considering how learning in higher education might be “indeterminate, non-linear, and contingent” (p. 370), and thus ill-suited to the certainty and rigidity of rational curriculum planning. Instead of beginning from abstract ideas, attempting to articulate learning outcomes to which all elements of curriculum become bound, Knight proposes that we might achieve curricular coherence by starting with the concrete practices that produce desired outcomes, “to provide ingredients from which a meal can be created, rather than to insist on cooking to a recipe” (p. 375). Curriculum coherence thus emerges not because educators are made accountable through outcomes that align with program goals, but because these professionals are trusted as those who recognize best what good learning, teaching, and assessment in their subject areas look like (p. 376).
They can then purposefully distribute these experiences throughout the curriculum.

Whereas Knight (2001) provides a high-level, theoretical rationale for approaching curriculum in a particular way, Wolf (2007) articulates the more practical business of “engag[ing] faculty members in a reflective process” (p. 16). Consistent with Knight’s concerns, Wolf wants to avoid “forcing a systematized outcome-based approach” on faculty (p. 19). He instead draws them into a three-phase inquiry through which they claim ownership over establishing priorities and deciding on action. He describes the process as “flexible” (p. 16), “faculty-driven, data-informed, and educational development-supported” (p. 17). This characterization fits well with our institutional context, as do the basic contours of the University of Guelph model. Educational developers ask faculty to partake in Curriculum Visioning, which includes data collection that informs program goals. The faculty then work on Curriculum Development, including curriculum mapping that informs the (re)development of the program structure. Finally, they ensure Alignment, Coordination, and Development by testing and strengthening congruences between the first two phases. Faculty intentionally dwell within each phase, and educational developers support them in a flexible manner, providing a variety of models to aid their exploration.

While Wolf’s (2007) approach seemed generally appropriate for our context, we wondered what it might look like to think about “visioning” as an idealistic phase, one distinct from yet ultimately informing the pragmatics of data collection. In heeding Knight’s (2001) caution, we were wary of limiting the “visioning” phase to an articulation of program goals, which is the definition suggested by Wolf’s and others’ models (e.g., Gwenna Moss Centre for Teaching and Learning, n.d.). Instead, we turned to Appreciative Inquiry as this idea has been operationalized in the Strengths, Opportunities, Aspirations, Results (SOAR) model (Stavros, Cooperrider, & Kelley, 2003; Stavros & Hinrichs, 2011).

Our Turn to Appreciative Inquiry

We adapted the SOAR model rather than adopting it in its entirety. Appreciative Inquiry, much like Wolf’s vision for curriculum development, is based upon open dialogue for creating a shared vision for organizational change (Srivastra & Cooperrider, 1990). It is dedicated to generating buy-in from all concerned parties which translates well into our educational development work. However, we were less convinced about Appreciative Inquiry’s stringent focus on positives, and the insistence that this optimism is the only way to make space for thinking outside existing boundaries and barriers. Stavros et al. (2003) note that SOAR emerged as a direct critique of the SWOT (strengths, weaknesses, opportunities, threats) model of analyzing organizational structures. They argue that, because a SWOT analysis is so absorbed in articulating the negative (the weaknesses and threats), this traditional approach to strategic planning is uninspiring and results in low engagement and clouded vision. As a modification to SWOT, we tend to find the language of SWOC (strengths, weaknesses, opportunities, challenges) more appropriate for working with faculty members. While we acknowledge that there is some debate in the literature between the SWOT, SWOC, and SOAR approaches, we have found in our facilitation of data-collection that any of these heuristics can be useful, and that giving stakeholders an opportunity to voice their concerns does not necessarily impede their ability to be imaginative further into the process.

What we take from the Appreciative Inquiry approach is not a strict dogma about replacing SWOT, but rather an orientation that values thinking beyond existing organizational constraints. Stavros and Hinrichs (2011) provide a way of thinking more expansively when they describe the 5-I approach of SOAR. They recommend organizing strategic planning processes around five stages: Initiate,
Inquire, Imagine, Innovate, and Inspire to Implement. Unsurprisingly, all five stages are rooted in a positive orientation, but their vision for the Imagine phase struck us as unique for curriculum development. When imagining a positive future, participants focus on possibilities without concern for barriers. Creativity thus inspires their planning. This ‘I’ became our inspiration and focus. In an attempt to simplify overly complex and rigid curriculum development processes, we adopted and adapted a 3-I model of Inquire, Imagine, and Innovate.

Micro, Meso, and Macro Framework

Before we proceed to the model, it is important to point out that we view curriculum development work through the lens of its impact on different levels of the institution. To do so, we turned to Poole and Simmons (2013), who conceptualize the structure of higher education institutions into three levels of influence: micro, meso, and macro.

At a micro-level, instructors, students, and staff act individually to enhance teaching and learning practices. In a curriculum development setting, this is where work on individual courses takes place, often by shaping course objectives, structuring assignments, and designing learning activities so that the main components of a course are in alignment. Departments sit at the meso-level of the organization. This is a prime space where instructors collaborate on programmatic decisions that will affect programs and degrees. For instance, program curriculum maps allow instructors to identify intersections between courses and foster better student experience by purposefully building learning activities on previous learning. Finally, Poole and Simmons (2013) identify “senior administrators governing the entire institution” (p. 121) as the macro-level. Their strategic decisions impact the work of curriculum development across the institution, such as when they create policies that establish official academic schedules.

Although the micro, meso, and macro framework was first proposed to describe the impact of Scholarship of Teaching and Learning within higher education institutions (Simmons, 2016), it is also a useful tool for guiding and delimiting the scope of curriculum development work. Its value becomes even more visible when considering the perspective taken by Williams et al. (2013), who include the notion of interactions within and between each level. These synergies and connections exist in each level, and educational developers can use this framework to conceptualize issues and influences affecting curriculum work. More importantly, the framework serves as a communication tool to stakeholders as it illustrates the various contexts involved in course and program redesign.

The 3-I Model

In this section, we introduce our Inquire, Imagine, Innovate model by describing each phase and illustrating each with a vignette of a possible scenario. Figure 1 shows a visual representation of the process, which we share with faculty members at the initiation of the project, along with expected timelines. Typically, the Inquire phase is the longest, often twice as long as each of the other two phases. In a project spanning an academic year, we might spend a whole four-month semester on Inquire, and then two months or so each on Imagine and Innovate. These timelines can be scaled up or down depending on the project.
Inquire

During a SWOC (strengths, weaknesses, opportunities, challenges) exercise facilitated for a course redesign project, the instructors suggest that the poor success rate is due to student apathy about the course and confusion about its relevance to the broader program. They wonder if the students simply do not devote enough study time to ultimately be successful. There is much more data to collect in the Inquire phase, however, and during focus group interviews, educational developers discover that students actually love the textbook and, in most cases, can articulate the relevance of the course well. While study time is indeed an issue, an unknown problem was that from the student perspective, the labs did not align with the rest of the coursework, which comes as a surprise to the instructors.

The Inquire stage is characterized by an active investigation into the relevant curriculum issues that have prompted the redesign request. In this stage, we engage all relevant stakeholders in defining key problems and questions, articulating what currently works well, determining student needs and feedback, and eliciting faculty members’ observations and perceptions. We also discuss the stakeholders’ definition of success for the completed curriculum work and help perform research that will support the process, such as conducting environmental scans or consulting scholarly literature that describes relevant disciplinary pedagogical issues.

The key activity in the Inquire stage is for the educational developer to support information and data-gathering. The specific data-gathering methods depend on the questions posed, but common examples include surveys, focus groups, and interviews with students and/or faculty members. In our experience, faculty members are often willing to set aside time during their class period so that we can gather information about student perceptions of the course and/or program. Those who find heuristics like SWOT, SWOC, or SOAR to be useful may employ these to frame their information-gathering and facilitation strategies. We receive a good level of student participation and capture diverse views by administering a short individual survey to students, followed immediately by a group conversation that allows for elaboration and more in-depth discussion. Depending on the issue at hand, we have also used a combination of individual interviews and a large group discussion to obtain faculty members’ perceptions of what is working well within a program and where some of the opportunities for growth and change might be. A third activity that we use regularly...
is curriculum mapping. We create a visual map of the outcomes, assessments, and learning activities across the program. Instructors are asked to contribute data from their own individual courses, which we then feed into the larger map. We also commonly use this form of mapping for micro level curriculum projects such as the design or redesign of individual courses.

The process of gathering information helps to further clarify the key issues driving the curriculum change. It also presents an opportunity to more fully engage relevant stakeholders, some of whose voices might not otherwise be heard. Similarly, deep inquiry helps ensure that issues that might otherwise be invisible or unnoticed are also surfaced so that they can be addressed during the later stages of the process. Dwelling in the Inquire phase also helps us to ensure meaningful collaboration, even among skeptics. In groups where some participants are wary about substantial change, or where there are opposing perspectives, it can be helpful to remind participants that the Inquire stage is an opportunity to ask questions, that no changes will be made immediately, and that these future decisions will be based on the evidence being collected.

The key strategy in the Inquire stage is exploration and holding back from jumping to conclusions or making decisions. Often, programs or participants want to start brainstorming solutions without an adequate investigation into the problem. In our experience working with departments, we commonly found that once the data are assembled and our colleagues see the larger picture, they are able to attain clarity on the nature of the problems identified. This clarity invites colleagues to consider different kinds of solutions than those they may have first envisioned. We should also note that, despite our desire not to foreclose on solutions too soon, we respect our colleagues’ need to express suggestions as they occur to them. In our facilitation, we maintain a robust ‘parking lot’ where ideas for future phases are noted, so they are not lost.

Imagine

A program wants to Indigenize introductory coursework, adding more relevant content and appropriate pedagogies. The Inquire phase, consisting of consultation with our campus office responsible for Indigenization, reveals course structures that might be recast from an Indigenous perspective. The Imagine phase allows the department to step outside of disciplinary and institutional norms to start with a blank page and ask, “What could these courses look like with an Indigenous pedagogical approach? What does the content look like when Indigenous voices are included?” We consider all the possibilities we can dream before re-introducing constraints such as transfer to other institutions. While those constraints may influence decisions made, a fully re-imagined offering provides new possibilities not seen at the beginning of the process. Given a landscape in which Canadian postsecondary institutions profess a strong commitment to Indigenization initiatives, an opportunity exists for substantive change to course designs.

The Imagine stage invites faculty members to engage in open conversations within a creative process designed to generate ideas and encourage divergent thinking. The key activity in this stage is creative brainstorming that temporarily sets aside issues of structural limitations in order to explore as many potential solutions, frameworks, structures, approaches, or pedagogies as possible.

Curricular issues that arise from the data collected in the Inquire stage are the starting point for the Imagine stage. We remind faculty members about any solutions that may have been suggested during the Inquire stage, but that were set aside for further consideration later in the process. Generally, we compile these suggestions and other data in a digital file that we can share with faculty members before an Imagine meeting, giving them time to analyze the data and consider their own interpretations of it. During an Imagine meeting, we facilitate brainstorming, often using tools such as
whiteboards, shared digital documents, and individual reflexive writing. Guiding questions for this stage might include: “What surprised you most about the data? How does this influence your understanding of the problem?” and “Given the problem that these data make clear to you, and assuming, for now, unlimited resources, infrastructure, and time, what solution would you choose to address the problem?”

The conversation may reveal various interpretations of the data and a wide array of solutions to several curricular issues at the micro, meso, and macro levels. The group may be tempted to prioritize the problems and focus on solving what they deem most important. However, during the Imagine stage, it is important to allow as many interpretations and solutions to be voiced as possible. This stage is a generative one, calling upon faculty members to think beyond their usual curricular approaches and frameworks. If conflict among proposed solutions arises, the educational developer’s role as an outsider to the department can prove invaluable. Our neutral position within the conversation allows us to remind faculty colleagues of the purpose of the Imagine stage. We can steer the conversation back to an open, exploratory tone, inclusive of any interpretation and priority expressed, and reassuring that the opportunity for narrowing the focus and ranking priorities occurs in the Innovate stage.

**Innovate**

During the Inquire and Imagine phases of the redesign of a multi-section first year course that was struggling with diverse interests of instructors and students, we determined that there was a need for more articulation and cooperation between sections, as well as buy-in from faculty in the department to teach the course. Concomitantly, it was apparent that there was a push at the meso- and macro-levels to address budgetary constraints. For the Innovate phase, we explored pedagogical approaches that would support learning objectives while also addressing the issues we identified in the previous phases. The resulting structure consisted of a blend between large lectures that cover core material and smaller seminar classes that introduce common case studies. Happily, this was also a less expensive structure. When presented in a department meeting for feedback, there was strong support for the changes, which were described as giving ‘new blood’ to the course.

The Innovate stage focuses on application and integration of outcomes from the two earlier stages to make informed decisions about what curricular elements need to change and how to implement these changes. In this stage, we work with stakeholders integrating all the relevant evidence from the Inquire phase, including any qualitative and quantitative data collected via surveys, focus groups, or interviews. Where appropriate, we draw relevant information from the grey literature (e.g., reports, policies, etc.) or other related research to inform decisions about whether the possibilities imagined are feasible, beneficial, or desirable, and how they can be implemented.

A key activity within the Innovate stage is to facilitate faculty members’ integration and application of the best available evidence, informing their decisions about meaningful pedagogical change. The goal of the Innovate stage is to transform existing pedagogical approaches using design elements that are both necessary and feasible within any identified constraints. Through a facilitated process, we ask stakeholders to consider such questions such as “What changes will you make to create maximum impact within existing constraints?” and, “What barriers might need to be removed?” We then facilitate specific decisions by engaging key stakeholders in priority-setting activities like ranking the changes that are the most pressing, feasible, or impactful. If using a SWOT, SWOC or SOAR approach, the facilitator may return to heuristic and related information-gathering outcomes to inform the decision-making process. Another valuable step is engaging key individuals or groups in consensus-building activities that help promote stakeholder buy-in before and during the implementation of
selected innovation. This includes identifying roles that will be required to support this innovation in the future. A focus of stakeholder engagement activities as well as facilitated discussions can also serve as advocacy strategies that promote the desired change and can help individuals or teams deal with change management and the transitional periods (e.g., Rutgers, 2018).

Within the Innovate stage, (re)design of pedagogical approaches may occur at the micro, meso, and/or macro scale, reinforcing the integrated nature of these levels of influence. Approaches at the micro level often reflect common foundations of instructional design that focus on reworking instructional strategies, course materials, forms of assessment, or modes of delivery (e.g., flipped or blended classes or experiential learning opportunities) for a particular course. The (re)design may also engage at a wider systems level (e.g., meso and macro) by triggering revisions to the scope and sequence of a program. Such structural changes may have implications for scheduling, pre-requisites, and pathways to completion. To ensure that the (re)designed innovations are achievable and sustainable, an important step of the innovate stage is to proactively encourage stakeholders to plan how they will support short-term and long-term implementation of innovations by identifying and leveraging the required resources.

Discussion

We discovered a way to shape the process of adapting and creating the model using a scholarly and pragmatic approach to curriculum projects that appreciates complexity and encourages contribution from all stakeholders. One problem we routinely encounter is that faculty members have their own perceptions of what problems exist in their context and tend to rush towards decision-making in their day-to-day mode of trial and error. While this is understandable in everyday teaching practice, for these resource-intensive projects we want to take a more intentional approach and slow the process down. Thus, breaking out the phases into Inquire, Imagine, and Innovate helps us to hold back the decision-making, reassuring faculty members that we will get there, while encouraging the team to dwell longer in questioning. It also encourages the collection of evidence to determine whether the perceived issues as initially formulated are actually the problems and allows time and space to gather student responses. The course release time provided to faculty members at this point is critical in allowing them to engage in a slower process than their full schedules generally allow.

It is important to recognize longstanding critiques of one-way linear processes that may overemphasize sequential actions when using any model. Such criticisms underscore tensions between the benefits of moving logically through foundational steps and the challenges of being agile in the face of complex, ongoing issues. To address these tensions between clarity and rigidity, those conducting curricular design in practice often encounter reflective meta-questions, including whether a particular approach is “a linear, sequential process, or is it iterative and non-linear? Or both?” (Willis, 1995, p. 13). Linear, “waterfall” process approaches are critiqued in the literature as representing a “manufacturing mindset,” (see for example Pope-Ruark, 2017, p. 11-26), with more flexible and incremental approaches recommended. The process we describe has a linear element in that we attempt to complete one phase before proceeding to the next. However, the process is not entirely one-way or rigid: it can easily have smaller iterative eddies and feedback loops as needed. It is always possible to cycle back to further inquiry if more information is needed in later phases, and it is also possible to do another iteration of imagining if institutional barriers prevent hoped-for innovations. However, the benefit of the model is in holding back decision-making and action until adequate exploration has occurred. For example, while participating in the early stages of a program curriculum project, instructors may be keen to re-
work a particular assignment that crosses over several interrelated courses. But in the context of the overall redesign, the developers are able to remind team members that we are currently in the *Inquire* phase, and before jumping into changing the assignment, we want to spend more time thinking about the underlying purpose of the courses, define the outcomes of the entire suite, and speak to students about how the current assessment model is working for them. From our experience, this will result in a stronger assessment design in the end.

Mitigating Potential Challenges

In an ideal world, educational developers would have access to all the relevant information and all stakeholders in order to effectively apply the 3-I approach. However, challenges may arise when not everyone who is affected by curriculum decisions is able to join the discussion table. While the adapted model offers a flexible and effective framework for educational developers working with faculty colleagues on their course and program (re)designs, it is important to recognize that this framework may at times be limited by parameters beyond the educational developer’s authority or purview. We encountered one such example when key administrators were not involved early enough in the process, until nearly the completion of the project. We discovered that the changes we were so excited about were not possible due to meso level control. We learned that when decision-makers are not part of the redesign team, they need to be brought into the conversation at key points in the Inquire and Imagine phases. This early involvement surfaces constraints that may otherwise remain hidden during the Innovate phase, and it positions decision-makers as key stakeholders throughout the process rather than simply as an audience at the end.

Like our faculty colleagues who must negotiate which solutions to their curricular problems are both most needed and most feasible, educational developers often navigate and respond creatively to often unpredictable constraints surrounding each curriculum design process. In order to mitigate potential challenges that can arise, we recommend identifying and, where appropriate, engaging with key issues and stakeholders at each level (micro, meso, and macro) of influence from the beginning of the project. Initiating the process in this way will enable those involved in the project to effect meaningful change within and between the appropriate levels of influence from the outset and on an ongoing basis.

Looking to the Future

Our team continues to update this model as we work with it, applying it with different groups in a variety of academic disciplines. While we sometimes connect with a team or individual by request, to do follow-up data collection the year after the course redesign, this is currently not a formal part of the process. Practical constraints mean that faculty members are busy with implementation and their course release is over, the reports have been written and decisions made, and we are initiating our next round of projects. To improve our model, we would like to add another ‘I’ to the model, such as Impact, to make the process more holistic. The addition of a formal phase in which we can assess impacts of curricular changes could be factored in to the life-cycle of the process, and stakeholders could therefore be made aware of any additional time and resources needed to undertake this phase. Is it best to evaluate the first iteration, or better to wait until things have been refined through one or two implementation cycles? How does the information gathered during the Impact phase then relate to curriculum renewal that may restart the cycle with a new Inquire phase? These are some of the questions we consider as we work through our curriculum changes and update the model.
It is important to move from being tacit to explicit when articulating and sharing educational development approaches. Such explicit explanation holds value for our own purposes and for creating meaningful dialogue with others in our field. Interestingly, when we presented the 3-I model to our colleagues at the 2018 annual conference of the Society for Teaching and Learning in Higher Education, they told us that the most useful follow-up to the session would be an online resource. However, in doing further review for the purposes of this paper, we discovered that other Canadian developers have created parallel and complementary processes (e.g., Kenny 2013; Gwenna Moss Centre for Teaching and Learning, n.d.) that were already available online. Thus, we have noticed that those in the educational development community (including ourselves) could make more adequate use of materials shared by other centres, in addition to turning to published literature. Like educators, developers often find themselves ‘re-inventing the wheel’ when it comes to their processes and programming. We see a need to expand leadership in educational development that fosters further sharing of materials, models, and practices across Canadian postsecondary contexts in a more formalized way. We can expand our efforts nationally by increasing collective educational development contributions at the mega level (Simmons, 2016). To this end, we see great value in expanding inter-institutional dialogue by collaboratively working to build our engagement of these issues, whereby we can improve the connections between centres for teaching and learning nationally. Our hope in sharing this work is to support other educational developers in their curriculum work, and we invite feedback and further collaboration in the future.

References


Biographies

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School-University Partnerships: A Model for Supporting Transition and Persistence from K-16

Catharine Dishke Hondzel, John Churchley, Susan Lidster

The reasons why students persist in their post-secondary learning are complex. This paper proposes a model for the development of K-16 partnerships that promote student success through the transition from secondary school to post-secondary, supported by teachers, faculty members, and educational developers. This model proposes that each of the partners engage in developing sustainable, collaborative projects. These projects have at their core a focus on students’ transition from one educational institution to the next, with the intended outcome of increasing rates of persistence, while reducing rates of attrition. Not all students may have post-secondary education as their personal goal, but for those that do, this support model aims to provide a framework to scaffold the transition so that learners are successful, and teachers and faculty are prepared to support learners as they move from one institution to another.

Les raisons qui expliquent pourquoi les étudiants persistent dans leur apprentissage postsecondaire sont complexes. Le présent article propose un modèle pour l’élaboration de partenariats K-16 qui vise à favoriser la réussite étudiante lors de la transition de l’école secondaire à l’éducation postsecondaire avec l’appui d’enseignants, de professeurs et de concepteurs pédagogiques. À la base, ces projets se focalisent sur la transition des étudiants d’un établissement d’éducation vers un autre. Ils visent à faire augmenter le taux de persistance et à faire diminuer le taux d’abandon. L’éducation postsecondaire ne constitue pas forcément un but personnel pour tous les étudiants, mais pour ceux dont c’est l’objectif, le présent modèle vise à fournir un cadre pour structurer la transition et soutenir la réussite des apprenants de même que la préparation des enseignants et des professeurs qui appuieront les étudiants dans leur transition.

Each year thousands of high school students move into universities and colleges across Canada. Statistics Canada (2018) reports that over two million full, part-time, and continuing education students were enrolled in Canadian universities and colleges in the 2015/2016 academic year; 488,118 of whom are under the age of 20. As such, Canada is well-positioned in the development of its human capital and, compared to other nations in the Organization for Economic Co-operation and Development (OECD), post-secondary participation is considered strong (Berger, 2009). However, student retention and persistence are an ongoing concern. Unfortunately, up to 40% of students do not persist into their second year (Childs, Finnie & Martinello, 2017). Moreover, despite rising enrolment and registrations in universities and
colleges, 30-43% of 18-24-year-olds choose not to attend post-secondary at all (Berger, 2009).

There are many reasons why students choose to discontinue their studies. While it may be the appropriate course of action for certain individuals, high-school dropout rates suggest that the education system is not meeting the needs of its students which signals the poor use of resources (OECD, 2008; Parkin & Baldwin, 2009). Widespread evidence suggests that student retention increases if and when institutions and instructors provide appropriate supports before and during the first years of study (Braxton & McClendon, 2001, Braxton & Mudy, 2001; Eitzen, Kinney & Grillo, 2016; Lizzio & Wilson, 2013; Pascarella & Terenzini, 1991; Wilson et al. 2016).

The reasons why students are attracted to post-secondary education (PSE) and why students persist has been well-studied in the US, UK, and Canada. However, the specific factors that promote attraction and retention are not broadly generalizable across institutions and vary by institutional type, setting, and student characteristics (Caison, 2007). Economic and social factors are known to play an important role, and data shows that low-income students, first-generation students, and Indigenous students are consistently under-represented in post-secondary education (PSE) in Canada (Canadian Council on Learning, 2009). Further, motivational factors are critical, as students who see themselves as likely to be successful, are aware of viable career options, and who have meaningful social and financial support through the transition are more likely to seek out additional education.

Just as recruitment is key to ensuring a steady supply of students into PSE, serious attention must also be paid to retaining students and helping them be successful both academically and professionally (Albert, 2010; Chrysikos, Ahmed & Ward, 2017). Retention is related closely to the concept of academic persistence, defined by Parkin and Baldwin (2009) as “the ability of students to continue their postsecondary studies from one year to the next and ultimately to proceed to the completion of the program” (p.65). Low levels of persistence may signal to institutions that financial resources are not being properly allocated. For open-access or regional institutions this may also mean the needs of the community remain unmet, thus the quality of life and overall prosperity may decrease (Parkin & Baldwin, 2009). Whether or not a student persists is related to a variety of factors, many of which are well-researched, and institutionalized as part of a system or program of student support and development. Tinto’s (1993) widely employed model of student integration details the specific reasons why students leave PSE and has generated a variety of applications and approaches to support student persistence and reduce attrition.

Like many smaller post-secondary institutions in Canada, Thompson Rivers University (TRU) faces increasing pressure related to domestic enrolment and student retention and persistence. As a primarily undergraduate regional university with a significant open-access component, it is expected that we respond to the needs of the local population and build programs and opportunities that meet the needs of local learners. The model we propose in this paper aims to build sustainable partnerships that meet the needs of our region, but also serves as a model that we believe is replicable in other contexts and types of institutions.

**Literature Review**

It is outside the scope of this paper to provide extensive detail on all of the programs designed to support student persistence and reduce attrition; however, we have included an overview of the research in the field. Researchers regularly identify either pre-existing student factors or specific programs related to systematic improvement of student retention. Common factors include date of admission, program choice, academic preparedness,
School-University Partnerships

and student engagement (Fisher & Engemann 2009). Others who focus on specific institutional policies and programs have referred to nine so-called policy levers (Braxton & McClendon, 2001, Braxton & Mudy, 2001; Pascarella & Terenzini, 1991) that improve student retention. These nine constructs include a range of policy-enabled supports and services ranging from recruitment messages to academic advising, to classroom practices such as active and collaborative learning strategies. Much has also been made of the widespread implementation of high impact practices (Kuh, 2008; Johnson 2010), and the importance of fostering a sense of belonging in students (Rayle & Chung, 2007).

The literature highlights a multitude of unique factors that contribute to students’ choice to leave or persist in a program. Post-secondary institutions are complex organizations, striving to evolve in order to meet the needs of their communities. Members of these communities—students, faculty members, staff, and administrators—create programs emboldened (or hindered) by available resources, government funding, external accreditation requirements, and practitioner knowledge. These programs, systems, and approaches are neither implemented uniformly nor valued equally, thus making it impossible to compare institutions.

Though over-arching programs are difficult to compare, one common factor in the retention and persistence literature is that student engagement is positively correlated with student-faculty and peer-to-peer connections (Braxton & McClendon, 2001, Braxton & Mudy, 2001; Kuh, 2008; Pascarella & Terenzini, 1991; Rayle & Chung, 2007; Tinto, 1993). Controlling for economic and social factors, students who interact with peers, engage with learning material, and feel they belong are more likely to persist. These students find value in the post-secondary community environment. When students feel they belong and are connected with others, they stay. This factor forms the foundation of the K-16 partnerships model. With a targeted focus on easing the transition between high school and university, students can develop a sense of belonging and community when they arrive on campus, feel understood, and supported as they navigate their way through post-secondary education.

Though not well-addressed in the student success and persistence literature, K-12 teachers and post-secondary faculty members can play a significant role in easing the transition into PSE and supporting student success and persistence (Rodriguez, et al. 2017). We refer to these as K-16 partnerships. This label is not meant to exclude students who take more than four years to graduate, mature students, or suggest that there are not significant pedagogical differences between each system of education. For those that include graduate school or post-baccalaureate study, the denotation K-20 may be more appropriate (Clifford & Millar, 2008). There are also opportunities to include Pre-K education within these partnerships. K-16 partnerships are a critical first step in helping faculty members and teachers develop a deeper understanding of the issues, challenges, and changes in secondary education, while providing a platform for faculty members to describe and clarify the expectations required for students at the post-secondary level (Rodriguez et al., 2017). Dialogue between faculty members and teachers can build bridges thereby helping students feel prepared and well-supported, and provide a platform for collaboration in order to solve complex social problems (Briggs, Clark & Hall, 2012; Walsh & Backe, 2013). This dialogue not only improves clarity between teachers and faculty members, it also helps secondary school students understand what to expect in PSE, and how to build upon what they learned in secondary school. When students have clear expectations, appropriate social and financial support, and feel respected, they will fare better academically (Briggs, Clark & Hall, 2012; Swail, Redd & Perna, 2003). Faculty members play an important role in helping students feel supported, and are often a first point of contact when a student begins to struggle. Teachers in the K-12 system are widely regarded as the front line in student success, offering support and guidance to students. Partnerships
between teachers and faculty members can create linkages to support students’ transitions and help one another better understand the knowledge, behaviours, and abilities of students at both levels. Meaningful support in the transition between high school and post-secondary is vital to the success of students, and foundational in the formation of learner identity (Briggs, Clark & Hall, 2012; Tinto, 1993).

The research on K-16 partnerships lacks a definition of the word “partnership” and fails to detail the members within the partnership (Clifford & Millar, 2008), making it difficult to understand the underlying mechanisms that K-12 and post-secondary institutions use to work together and the key stakeholders involved. Simultaneously, there are a wide variety of stated purposes and goals for the K-16 partnerships. Some of these partnerships are focused on inputs, such as building relationships for student recruitment and transfer, community-building for educator preparedness, athletic development, and/or knowledge sharing for marketing or communications (Clark, 1988). Process-oriented partnerships may be focused on increasing community diversity or leadership capacity (Dyson, 1999), or on governance structures and building trust between members (Clifford & Millar, 2008). However, the bulk of the research on school-university partnerships is focused on the tangible outputs or outcomes that benefit post-secondary institutions or faculty members. These include, but are not limited to, topics such as increased research productivity (McLaughlin & Black-Hawkins, 2007) or the effectiveness and nature of student teacher training and practicum placements (e.g., Burton & Greher, 20078; Jones et al., 2016; Guillen & Zeichner, 2018; Martin, Snow & Torrez, 2011). Comparatively, few studies discuss the role of K-16 partnerships in fostering student success, learning, or increasing post-secondary retention and persistence (Dyson, 1999; Walsh & Backe, 2013).

Another neglected aspect of the K-16 literature is the role of educational developers, or curriculum development staff in managing and negotiating the relationships between teachers and faculty members. “Educational developer” refers to an individual whose job involves supporting effective faculty member instruction, developing teacher practice, thinking and motivation, and developing learning environments (Gibbs, 2013). The educational developer indirectly supports the institution and the faculty members to create and improve institutional teaching and learning strategies (Gibbs, 2013; McDonald et al., 2016). In the K-12 system, teachers that work with their colleagues in these areas have roles such as Curriculum Coordinator, Helping Teacher, or Staff Developer (York-Barr & Duke, 2004). While these roles vary by institution, the aim of an educational developer is to support faculty in improving pedagogy and the student experience. Given the nature of this role, it seems fitting to use the skills, resources, and networks of educational developers in both K-12 and PSE systems to foster and support K-16 partnerships.

Any successful collaborative project must result in gains for all parties, and the partnerships should be strongly supported and advanced by the senior leadership at both the school and post-secondary level (Druckman, Peterson & Thrasher, 2002; Jones et al., 2016; Peel, Peel & Baker, 2002). Developing a partnership between schools and universities is a slow process built on a foundation of trust, communication, shared resources, and a willingness to collaborate (Dyson, 1999; Jones et al., 2016). In research partnerships or teacher practica experiences, the university typically drives the partnership, relying on the school district to provide data or host teacher candidates. Benefits to the K-12 partner are less clear but do include the recruitment of graduating teacher candidates (Cooper & Alvarado, 2006) and co-construction and evaluation of curriculum, instruction, and/or leadership strategies (Walsh & Backe, 2013). Other school-university partnerships, such as dual credit courses, may benefit some students yet have less effect on underserved or marginalized students (Taylor, 2015).
Context

The faculty and staff at TRU are committed to helping students succeed and persist in their post-secondary studies. TRU is a regional, open-access, primarily undergraduate university with approximately 26,000 students split evenly across campus and distance programs (TRU, 2018a). One of the strategic mandates of the university is to increase student success, especially in the context of transitions between high schools and the university. Kamloops is a small city of 90,000 people (Statistics Canada, 2017) that maintains close partnerships within the region, including with the TRU and the School District No. 73 (Kamloops-Thompson [SD73]). Institutional data reports show that more than 85% of SD73 students entering university directly from grade 12 go to TRU. In addition, many of the university’s faculty and staff have children who attend local schools, and TRU students complete practicum placements locally or regionally. Strong informal ties already exist between SD73 schools and TRU.

Since 2015, TRU has partnered with SD73 in varied ways to support student transition and progression. This partnership developed organically, starting with connections made through the introduction of a Secondary Science, Technology, Engineering, and Math (STEM) stream to the TRU Bachelor of Education program. This encouraged a number of pre-existing partnerships to formalize into a joint committee called Mind the Gap. The committee has organized a series of networking events connecting K-12 teachers with university instructors. Educational developers from both systems are included, as are those in senior leadership (deans, directors, etc.) along with representatives from the Superintendent’s Office. The joint committee’s efforts are documented through websites and information videos (TRU, 2018b). Networking events have led to additional partnerships, including research, sharing of resources and equipment, joint pedagogical activities, and collaborative development of resources.

A Model for K-16 Partnerships

We propose a model (shown in Figure 1, below) that supports K-16 partnerships through the development of mutually meaningful relationships between teachers and faculty members, leading to heightened understanding, awareness, and preparedness to assist students with their transition. Our model extends Tinto’s longitudinal model of institutional departure (1993, p. 114), with insight from Ethington’s model of student persistence (1990, p.283) and the student lifecycle model (Lizzio & Wilson, 2013). The model shown in Figure 1 depicts a means by which student success and persistence may be supported by fostering connections through a distributed leadership model (Harris, 2014) between teachers and faculty members, and supported by educational developers, the school district, and the post-secondary institution. Ethington’s model (1990), and to a lesser extent Tinto’s model (1993), emphasize the personal variables that students bring to their education, such as goals, socioeconomic status, and academic self-concept. Tinto’s model of institutional departure includes the role of the external community and the role the academic system plays in student decision-making. Our addition does not supplant the many pre-existing conditions students bring to their education (e.g., family status or institutional characteristics). Instead, it proposes that meaningful connections between teachers and faculty will further assist students in achieving their academic goals. This proposed sub-model fills a gap in the literature and is recommended for consideration in forthcoming models of student persistence and retention that recognize the impact of institutional experiences and variables.
We theorize that students who are in transition from high school to PSE will be better supported by secondary teachers (and by extension, elementary teachers) who understand the nature of the post-secondary environment and the expectations and roles of faculty members. Likewise, faculty members who are aware of the secondary curriculum and pedagogical practices may be better prepared to support student transitions. Transfer of knowledge occurs when these two parties interact and collaborate with each other in various ways to share information, resources, and co-develop research projects. This mutuality in partnership is recognized as a process of co-construction, trust, and shared understanding.

Educational developers at the secondary and post-secondary levels act as liaisons between teachers and faculty to support professional development, resource sharing, and structure conversations around learning outcomes at both levels. Using a distributed leadership approach (Harris, 2014) teachers and faculty members also work together to build partnerships to learn about each other’s classroom. They expose students to the post-secondary environment, and gain awareness of the curriculum. In this process there are multiple leaders, each taking on different tasks over the period of the project. Educational developers collaboratively provide administrative and budgetary support, while facilitating these connections and conversations through meetings, joint professional development initiatives and personalized encouragement and troubleshooting. In our project, the educational developer role belonged to a well-respected teacher who has previous experience in the school district, and who also serves as a faculty member in the Faculty of Education. This position (called a coordinator) was supported within the framework of the university’s centre for teaching and learning, which provided program oversight and funding distribution as well as secretarial support. The educational developer was able to develop partnerships and make connections between faculty members and teachers thanks to an awareness of the roles and expectations in both institutional settings.

Schools and post-secondary institutions operate under confined budgets; therefore, additional funding is required to extend the conversations and create opportunities to establish sustainable partnerships. Partners must prepare a detailed proposal for operational infrastructure, including how funding will be obtained and how the partnership will be sustained (Walsh & Backe, 2013). Small institutional grants to support projects are
suggested as a means by which the post-secondary institution can encourage dialogue while enabling faculty members and teachers to develop mutually beneficial projects. Further, granting programs mitigate concerns over scarce resources and expanded or unrewarded responsibilities. We suggest that institutions establish grants for such things as teacher release from regular duties, travel, research assistance, materials, and other costs incurred over the course of the project term. In addition, the grant program signals an investment in project success by post-secondary administration, recognizing that these types of partnerships are often beyond the scope of faculty members’ research, service, and teaching commitments. Grant holders should become part of a community of practice (Lave & Wenger 1991) to support them in developing, sustaining, and reporting on their project. In addition, cohorts have proven to be a powerful means for building professional communities (Bullough & Kauchak, 1997). We believe that this partnership model will develop and support meaningful relationships between faculty members and teachers, leading to increased student retention and academic success.

Conclusion

With the rapid change in K-12 curriculum and the evolving needs of students as they move into post-secondary study, continuing dialogue and transparency is needed now more than ever. A key driver of our project was the implementation of a new BC secondary school curriculum. Campus-wide awareness of this provincial curricular change spurred strategic investment in line with the existing university strategic priorities (TRU, 2018c) to support student retention and success. In our model, university faculty members are supported to adapt their curriculum for students entering post-secondary with different skills than previously. Similarly, teachers are supported to learn how to effectively prepare their students for post-secondary studies. Fostering K-16 partnerships helps to meet these needs and could reduce student attrition, increase persistence, and build knowledge and understanding between teachers and faculty members.

By proposing this addition to other student retention and persistence models, we endeavour to highlight the important role that educational developers can play in academic partnership-building. Institutional change is often embraced reluctantly, and academic staff tend to view student attrition as connected to student deficit (Potter & Bye, 2014). As stated earlier, teachers and faculty members are busy, with no shortage of tasks they are expected to accomplish. Building new bridges and partnerships may be seen as work with limited potential benefit. However, by making a modest investment in fostering K-16 partnerships and establishing a joint support unit to connect the two different education systems, it is possible to not only support student success, but measurably reduce student attrition during post-secondary study.

K-16 partnerships are built upon a mutuality of need and a capacity to respond, yet require the ability to navigate two different, complex systems. By investing in relationships, communication, and shared dialogue, both systems may develop the enhanced ability to direct program development efforts and respond with greater agility when major curriculum changes are implemented at the secondary level. The inclusion of this model in support systems directed at student persistence reinforces the need for planned and deliberate dialogue, as well as liaison between schools and post-secondary institutions. Together this enables informed decision-making and helps students succeed when they enter higher education.
References


Biographies

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Eastern Time: Reflections on the Evolution of a Cross-Institutional Instructional Skills Workshop (ISW) Program in Atlantic Canada

D. William Kay, Chad O’Brien, Russell Day

This short paper outlines the design and development of a multi-phase, cross-institution Instructional Skills Workshop (ISW) program that was conceived by educational developers from five higher educational institutions in Halifax, Nova Scotia. The initiative is grounded in the belief that implementing the ISW program in the Halifax Regional Municipal (HRM) area will foster a local community of practice and further cross-institutional initiatives focused on enhancing teaching and learning approaches. This paper offers a brief historical background and rationale of the ISW program, and details of implementation. In addition, the lead coordinators share their reflections on the challenges and implications resulting from the process of adapting this established program to fit an innovative and mutually supportive cross-institutional design within the HRM.

The Instructional Skills Workshop (ISW) Program: A Brief History

The Instructional Skills Workshop (ISW) has been described as a “comprehensive three-tiered instructor development program that serves as the foundation for several professional development activities” (iswnetwork.ca). The ISW program was originally developed during the late 1970s in British Colombia as a response to a call for more instructional skill mentorship for early career higher education-based instructors. Since then, the ISW program has been equally influential on more experienced educators in higher education institutions (HEI) in Canada and has grown internationally to over twenty countries.
The ISW program is an immersive workshop that is offered within small group settings (an optimal number is five participants per one certified ISW Facilitator) with the aim of enhancing active teaching effectiveness and reflective classroom-based practice. The program is most effectively delivered in a three- or four-day retreat setting that builds community around the concept of best practices for active classroom teaching. A central focus for participants throughout this 24-hour workshop program is designing and delivering three 10-minute lessons and receiving peer-led feedback from participants. The workshop aims to provide a highly experiential and reflective learning experience for post-secondary-level instructors by following this outline.

Foxe, Frake-Mistak, and Popovic (2017) have highlighted the great appeal and popularity of the ISW in the field of educational development despite a present dearth in existing literature that documents evidence on the effective longitudinal impact of the program on teaching practice. The exception to this observation has been the publication of a comprehensive systematic study conducted by Dawson et al. (2014) for the Higher Education Quality Council of Ontario. Amongst some fascinating and somewhat contradictory findings, the Dawson et al. (2014) study identified an increase in reflective practice amongst teacher participants who engaged in the ISW. The educational developers involved in leading the initiative to introduce the ISW into the Halifax Regional Municipal (HRM) area referenced such findings in available literature while preparing an institutional funding proposal for the program. Since fostering an increase of reflective practice amongst faculty was a shared objective for institutional stakeholders involved in funding this initiative, the Dawson et al. (2014) report provided an evidence-based rationale for introducing this program into the HRM HEI landscape.

In response to the dearth of research-based literature on the ISW, the lead coordinators of this pilot project initially considered collecting qualitative evidence to measure participant perceptions but ultimately decided that a research-based approach in the early development of this cross-institutional initiative may hinder progress in cultivating a shared sense of community vision and engagement around this regional pilot initiative. As a result, this paper is intended to contribute to the ISW narrative and reflective-based literature from an educational development perspective.

Implementing a Cross-Institutional ISW Program

In the fall of 2016, Halifax-based Educational Developers, William Kay (Saint Mary’s University) and Chad O’Brien (Dalhousie University), partnered in efforts to begin building an integrated ISW presence within the HRM HEI landscape. Kay and O’Brien, both certified ISW Facilitators, envisioned a training model that could potentially produce two certified ISW Facilitators from each of the following five HRM-based HEIs within the span of one year: Saint Mary’s University, Dalhousie University, Mount Saint Vincent University, Nova Scotia College of Arts and Design (NSCAD) University, and Nova Scotia Community College. An additional faculty member affiliated with the University of New Brunswick joined later in the project which indicated greater interest and involvement in the program throughout the wider Atlantic Canada HEI community.
By design, this program was intended to foster cross-institutional collaboration in promoting active learning and reflective teaching practice. Although these inaugural attendees were all experienced educators, having them jointly participate in this ISW Facilitator’s certification process as a cohort was a strategic focus for two main reasons: first, to gain experience and understanding of the merit behind the ISW through the process of becoming a certified ISW Facilitator; and second, to create a strong foundational base for a cross-institutional community of educational developers that would continue to engage in coordinated and collaborative regional teaching and learning initiatives. The cross-institutional dimension was ultimately intended to highlight the benefits to collaborative professional engagement amongst educational developers within a community that included sharing expertise, building capacities, and expanding professional development opportunities.

During this pilot initiative, the ISW was offered three times (April, 2017, December, 2017 and April, 2018) to achieve two goals:

1. To offer the workshop experience to those educational developers who might be trained as ISW Facilitators as completing an ISW is a prerequisite in this process.
2. To showcase to fellow faculty members the transformative potential of the program so they might be ‘word-of-mouth ambassadors’ for the program.

Ideally, offering an FDW in May of 2018 would allow for the training of up to ten new ISW Facilitators, and also certify two new Trainers: experienced ISW Facilitators, apprenticed with existing Trainers, who complete their training in situ. The final phase of the pilot project resulted in the certification of eight educational developers as ISW Facilitators and two previously certified and experienced ISW Facilitators to Facilitator-level Trainers.

As a cost recovery measure for workshop expenses (e.g., resource supplies and catering), it is typical for participating HEIs to sponsor their own participants and charge a registration fee for external participants. Registration fees can be as much as $850 for a 40-hour Facilitator Development Workshop (FDW). In leading and supporting this cross-institutional initiative, Saint Mary’s University and Dalhousie University covered the costs for the three initial ISW training sessions. This funding was sponsored through each institutions’ respective Teaching and Learning Centres and their related faculty development-based committees. All five institutions contributed to funding the costs of the final FDW program by sponsoring a $500 registration fee for each participant.

Recruiting two experienced ISW trainers to assist with planning and the actual training of Trainees and Facilitators was a key consideration in the development of this program. At the 2017 Educational Developer’s Caucus (EDC) in Guelph, Ontario, William Kay was introduced to Russell Day (Simon Fraser University), who is a highly regarded and experienced ISW and FDW trainer. After learning more about the ISW cross-institutional plans in Halifax, Day committed to serving as the lead ISW trainer for the project. Another experienced ISW/FDW trainer, Paula Hayden (Director of Teacher Education, Nova Scotia Department of Education and Early Childhood Development) assisted Russell during the final stage FDW training.

Cross-institutional partnering in supporting the development of the ISW program is certainly not a novel concept and has been a logical and inherent part of the program’s successful development since the late 1970s. Morrison’s (1985) early work on the development of the ISW program in Canada and Day et al.’s (2004) work in more international settings served as useful reference points in the development of this recent initiative in the HRM. The following section offers insights from the three lead designers and coordinators of this initiative. Reflections on project outcomes are offered through the lens of
educational development in the following areas: Program Design, Institutional Commitment, and Sustaining Community and Assuring Quality. Although the introduction and implementation of ISW programs in new HEI landscapes are contextually unique, the reflections shared below are intended to inform educational developers who may be involved in similar program development pilot initiatives.

Reflections

Russell Day: Program Design

I had heard news within the ISW community that William and Chad were hoping to formally introduce the ISW to the post-secondary institutions that were mostly focused in Halifax with an eye to eventually expanding into the wider Atlantic region. As a Trainer with some experience helping to establish ISW programs in new regions, I offered my services when I met William at the 2017 EDC Conference in Guelph, ON. Two things struck me from the beginning; 1) Both William and Chad had a great deal of enthusiasm about the power of the ISW program to be a community / network building mechanism; and 2) there was a clear plan about ‘capacity building’ that was tempered by the recognition that it would be a lot of work. I next met with William during the 2017 STLHE Conference in Halifax, where we also discussed the need for another Trainer moving forward. After that first meeting, I was committed to helping, and offered to travel to Halifax to train ISW Facilitators and FDW Trainers.

From my perspective 4500 km west, William was facing a number of challenges in assuming the role of the host institutional representative at Saint Mary’s University where all the ISW workshops and training sessions were held. Scheduling, offering, and completing enough ISWs to screen for potential facilitators was a roller-coaster, with the final ISW workshop completed just a week before the scheduled FDW. William was also caught between my expectations and his on-the-ground logistical realities – the FDW host always seems to carry a particularly heavy burden that is associated with room bookings, equipment and supplies, and catering.

Furthermore, overall scheduling is always susceptible to disruption by unforeseen events and sudden participant attrition. One particular challenge for William occurred when his original strategic planning partner, Chad O’Brien, had to drop out of the project due to sudden and unexpected workload and capacity considerations within his own institution that resulted in him being reassigned to other pressing duties. Dalhousie University was able to replace Chad with another experienced ISW Facilitator and Educational Developer, Tereigh Ewert-Bauer, who provided excellent leadership and support for our reconfigured team.

Despite all these challenges, the FDW was a success resulting in two new FDW Trainers being certified (William and Tereigh) and eight new ISW Facilitators being certified from five post-secondary institutions in Nova Scotia and one in New Brunswick. We all naturally learned a great deal through the process. As a Trainer invited to bring the ISW or FDW program to a new region, I would recommend several things: 1) accept that the ‘longer than expected’ time-lines are a reflection of things beyond your control; 2) seek to include all the stake-holders (and financial sponsors) in all communications to reduce potential misunderstandings; 3) accept that local conditions may require more flexibility than originally expected; and 4) be willing to ‘roll with it’ – the inherent model of the ISW and the FDW are robust enough to allow you to ‘trust the model, and model the trust’.

Chad O’Brien: Institutional Commitment

During the inaugural Regional Educational Developers meeting in Halifax in 2017, William and I met and quickly came to realise that we shared a common background (with both of us having been...
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previously trained as ISW Facilitators while working overseas at two HEIs located in Doha, Qatar). It was interesting to connect and share stories, and we quickly had the idea to meet and discuss the possibility of offering an ISW session together in Halifax. After meeting a number of times to discuss the possible framework design and cross-institutional benefits of offering an ISW to the local HRM HEIs, William and I worked together and delivered two ISW sessions successfully with a mix of both educational developers and other faculty members participating in the workshops.

Our respective institutions were aware of our intentions and offered both William and I the time, classroom space in-kind, and funding for catering costs to allow this initiative to gain momentum. William and I then provided oversight in managing the recruitment, scheduling, communication, preparation, and workshop facilitation tasks. Our hope to create a large enough pool of experienced candidates to participate in an FDW was realized, and this moved our project into a phase that further engaged our respective institutions.

A proposal was drafted to officially request further financial support from our respective institutions, and a positive impact of that proposal was a significant increase in the funds required to have two experienced trainers come and support the FDW event. Despite this positive turn in program funding support, there were some increasing demands in the utilization of professional staff both as FDW participants and facilitators. For example, at Dalhousie University, there were two educational developers being certified in their FDW and one facilitating. Justifying the depletion of human resources needed to engage in the FDW was complex as it now included both funding and, more critically, staff time (a full 6-day commitment per individual). This was occurring at a time when the Centre for Learning and Teaching at Dalhousie was already extremely busy. This increase in our projected Centre funding and human resource capacity required extra attention from leadership in carefully considering budgets and operational requirements. This involvement had an impact on the overall decision making around the project’s initial plans and the selection of staff who would be able to be provided the time to participate.

The increase of institutional leadership involvement and support ultimately resulted in a successful offering of the FDW event. It did, however, require a more complex level of decision making and a set of considerations for participation and ongoing support to the ISW program both at an institutional level and at a cross-institutional level. Upon the pilot project’s completion, the individual institutions began to consider their own internal capacity and needs in relation to the ISW, and as a result the cross-institutional aspect of the project has momentarily become less of a focus. However, local and regional HEI committees, such as the Atlantic Association of Universities (AAU), have provided us with ongoing moral support in encouraging and promoting further cross-institutional ISW offerings in addition to other professional development collaborations.

William Kay: Sustaining Support and Assuring Quality

Community building around teaching and learning research and professional development initiatives has always been an intrinsic interest and passion of mine throughout my career as an educator and educational developer. Based on my own previous experiences as both a participant and facilitator, the ISW program has offered a rich venue for a collective exploration into the process of teaching, learning, and reflective practice. In many cases, I have witnessed the ISW experience being instrumental in building enduring professional relationships that have spanned many continents over several years. As a result, I was very eager to assist in leading a planned and coordinated introduction of the ISW program into the HRM HEI landscape.

Although I did acutely experience many of the planning and procedural challenges that Russell has
outlined above, two specific challenges emerged and were made more apparent after our one-year cross-institutional trial had ended. One of these challenges was finding an effective path in continuing to provide adequate support for our new ISW Facilitator community. As our recent community of certified ISW Facilitators were naturally eager to launch their own institutional programs, experienced members from our training team have already been called upon to assist in co-facilitating ISW programs at our partnering local HEIs. Due to professional and institutional demands, our newly certified ISW Trainers have not yet been available to assist in this co-facilitation. In one case, this unfortunately resulted in the cancellation of a scheduled ISW program. Thus, a concern moving forward is working out a feasible strategy in supporting our new ISW Facilitators. This may simply be an issue of time when further facilitator training is able to occur in order to scale our available supporting human resource mechanisms and capacity.

An interrelated challenge in sustaining adequate support is the issue of assuring program quality. Although the ISW program allows for some flexibility in the selection of content and delivery, there are important core themes and methods (e.g., drafting effective lesson outcomes using Bloom’s taxonomy and active learning methods) that need to be facilitated. Having experienced FDW Trainers co-facilitate with new ISW Facilitators is an ideal quality assurance step in measuring that these standards are maintained. As this may not always be possible, measures must be established where our community can have access to some alternative means of peer program assessment. These peer assessment opportunities may come in the form of quarterly or bi-annual meetings where facilitators can debrief our community about their programs and have access to peer feedback.

Although ‘communities of practice’ are known to be greatly served by a convener who can lead and facilitate the process (Wenger-Trayner & Wenger-Trayner, 2014), there is an understanding that a distributed leadership model is also needed in order to ensure that our cross-institutional design remains sustainable. Moving forward, our community is now in the process of scheduling regular ISW Facilitator “socials” in maintaining our communal discourse and planning optimal ways of sharing resources and building further support capacity.

**Conclusion**

Despite the challenges and implications outlined above, introducing the ISW program in the HRM higher education landscape was considered a success by the coordinators, participants, and their institutional stakeholders who assisted in supporting and funding this initiative. As the trial year progressed, more interest in the ISW program became evident within the wider Atlantic region and was added as an agenda item during the Atlantic Association of Universities’ (AAU) annual 2018 Coordinating Committee on Faculty Development (CCFD) meeting. Supporting mechanisms and shared cross-institutional funding models are presently being discussed and explored in order to develop more training opportunities throughout the Atlantic region. The goal of this paper is to document the process and share reflections related to the successful implementation of a cross-institutional ISW program amongst a regional educational development community and to provide the lead coordinators with a foundational platform to engage in future collaborative inquiry projects in two areas.

The first area follows a call for more research in measuring the impact of the ISW on participants. A possible and accessible focus of research in this area draws upon Dawson et al.’s (2014) recommendation in measuring the increase in teaching self-efficacy for participants who have taken the ISW. Dawson et al. (2014) have suggested that this type of research might involve utilizing a tool such as the Teacher’s Sense of Self-Efficacy developed at Ohio State University (Tschannen-Moran & Wookfolk Hoy,
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2001) as a pre-post study measurement. Identifying a positive change in teaching self-efficacy may serve to further highlight the benefits of the ISW program to educational developers, faculty members, and other stakeholders in both the HRM and the wider Atlantic region.

Another area of research interest from an educational development lens might involve a qualitative inquiry on the emergence of distributed leadership within a cross-institutional community of practice. Such an approach in piloting an integrated community of practice framework has been utilized as a conceptual filter in helping to identify emerging trends of distributed leadership occurring within a collaborative interprofessional teaching and learning initiative (Kay, 2018). Such an approach is transferrable in this context and might assist in informing optimal levels of educational development and institutional leadership supports needed for similar cross-institutional communities of practice.

Collaborative commitment to a shared pedagogical vision is the ultimate key to success in the development of this multi-phase cross-institutional ISW initiative. The Atlantic region was able to navigate the inherent obstacles of implementing such an initiative by way of a collective community vision. The process may be long and arduous, but the end result is a local community of practice that provides opportunities to enhance teaching and learning approaches in the higher education landscape.

Although there were inherent obstacles that needed to be navigated, it was a community’s collective vision that served as a beacon shining through the fog. In many ways, a lighthouse is perhaps the most fitting visual image to reference considering the eastern Canadian context where this pilot initiative was situated. And like a lighthouse, it cannot be built quickly and takes many hands.

References


Biographies

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