



Light

ON TEACHING

2019-20 Issue
ISSN 2292-0153

FEATURE ARTICLE

Three Changes I Have
Made To My Assessment
Practices That Have Made
My Life Easier

by Dr. Richelle Marynowski

ALSO IN THIS ISSUE

Five Critical Questions
Around Online Teaching
At The U Of L

➤ CONTENTS

IN THIS ISSUE

2 Five Critical Questions Around Online Teaching At The U Of L

20 Cellphones And Education

FEATURE

7 Three Changes I Have Made To My Assessment Practices That Have Made My Life Easier

23 Models For Effective And Fair Student Evaluation Of Teaching

11 Supporting Teaching Through Mentorship Programs In Post-Secondary Institutions – A Case Study At The University Of Lethbridge

16 ‘What Can You Do When There’s Nothing To Touch?’ Empowering Undergraduate Researchers At The Galt Museum

ACKNOWLEDGEMENT OF BLACKFOOT PEOPLE AND TERRITORY

Oki, and welcome to the University of Lethbridge. Our University’s Blackfoot name is Iniskim, meaning Sacred Buffalo Stone. The University of Lethbridge acknowledges and deeply appreciates the Siksikaitapii peoples’ connection to their traditional territory. We, as people living and benefiting from Blackfoot Confederacy traditional territory, honour the traditions of people who have cared for this land since time immemorial. We recognize the diverse population of Aboriginal peoples who attend the University of Lethbridge and the contributions these Aboriginal peoples have made in shaping and strengthening the University community in the past, present, and in the future.



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Director's Message

by David Hinger

Ok and welcome to this year's *A Light on Teaching Magazine*. The 2018-2019 academic year included several wonderful collaborations with faculty to enhance teaching and learning at the University of Lethbridge. In addition to our ongoing support for faculty and graduate students, we saw an increase in activity in the areas of scholarship of teaching and learning, online learning, and open educational resources. One item I am particularly proud of is a new inclusion resource section on the Teaching Centre website (<http://www.uleth.ca/teachingcentre/inclusion>). Currently, we have populated the site with Indigenous inclusion resources and the accessibility toolkit for educators. We look forward to working with faculty across campus to continue building this important resource in the upcoming academic year.

It is gearing up to be an exciting year for the University of Lethbridge. With the opening of the new Science and Academic Building (SAB) we are looking forward to hearing about the innovative teaching, learning, and research this new facility will support. The Teaching Centre will be actively researching the classrooms in the new building to help inform the important next step of Destination Phase II, the revitalization of University Hall. We are also looking forward to the opening of the new Agility Innovation Zone in the SAB. This new space will provide our students and faculty with innovative tools and technologies to support their academic and research endeavours. The Agility Innovation Zone will facilitate new collaborations and enhance the student experience at the U of L.

I hope you enjoy reading all of the articles in this year's magazine and wish you the best in the 2019-2020 academic year. 🦋

Teaching
CENTRE



5

CRITICAL QUESTIONS

AROUND ONLINE TEACHING AT THE U OF L



by Joerdis Weilandt, Helen Connolly, Adriana Monteiro Lima

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Introduction

*D*igital Teaching and Learning invokes various positions and passions. Many articles in mainstream magazines as well as academic publications feature online teaching or other digital delivery formats to make predictions about the future of higher education. These discussions often aim to provide direction by means of answering central questions like what teaching and learning in the near future will or should look like, whether and how universities should offer courses in increasingly digital formats, and what changes would need to be undertaken to effectively transition from on-campus classrooms to virtual teaching spaces. The impetus for us to join the formal discussion of such future developments in higher education was provided through *FLO Design* (Facilitating Learning Online), a five-week-long faculty development course offered by the U of L Teaching Centre this spring (2019) to those U of L educators who wanted to broaden their teaching repertoire in light of shifting student expectations and emerging digital technologies.

Here, we address five questions which we hope will shed light on common misunderstandings surrounding online education and enable informed decision making regarding contemporary online teaching at our institution. Although the U of L has been offering online courses in some capacity over the past ten years, we are now beginning to expand these offerings considerably across many faculties. This is a critical opportunity for the U of L to shape its approach to online education. It is our chance to establish a framework for excellence in online teaching that supports both faculty and students, and to distinguish ourselves from other post-secondary institutions already offering online education by building on what we know is one of our greatest strengths as an institution: Our commitment to interactive, student-focused, high-quality teaching. The questions below are a direct result of the discussions raised in the *FLO Design* course and include both instructor and student perspectives. While we approach these questions from our own experiences in this course, they also speak to larger concerns and ideas within online education in general. The discussion has been constructed this way to focus on specific issues of concern, both on the level of the institution and of individual instructors. We, the authors, come from a range of backgrounds, as an international triad of educators with a variety of experiences in teaching and learning (academic writing, educational consulting, ESL/EAP/ESP, intercultural communication, modern languages instruction, OER advocacy, and

online teacher training). We are open to all feedback regarding the content of this article and hope that it will spark a much-needed discussion in our institution that can guide us in our future teaching activities.

1. What Do the Terms *Online Teaching* and *Blended Learning* Mean?

Teaching online happens on a continuum, where the web technology used in teaching determines the degree to which specific parts of the teaching happen in virtual environments (1). At one end of this continuum, teaching online could relate to something as simple as the use of a forum as a course communication tool, while at the other end, teaching is delivered completely online utilizing digital tools to share teaching resources, collaborate among participants, and evaluate the learning progress. The term *online teaching*, however, is generally used to refer to teaching which is delivered primarily or entirely in a virtual environment. Everything in between the two end points on the continuum—i.e., all teaching scenarios that are not exclusively delivered in a face-to-face classroom or completely through a virtual learning environment—can be summarized under the umbrella term *blended* or *hybrid learning*, which thus means a deliberate combination of digital content and/or activities paired with in-class instruction.

2. What Is the Current Situation?

Current trends provide us with strong indications where higher education is rapidly heading. Over two thirds of post-secondary institutions in Canada now offer some courses in an online modality. Tony Bates (2), a dedicated academic collaborator in the field of online and distance education, notes that in Canada online learning has gained general acceptance and is widespread at a system level. Blended and hybrid learning are growing slowly and are reported to result in more innovative teaching. According to the most recent report coming out of the 2018 National Survey of Online and Distance Learning in Canadian Universities and Colleges (3), online enrolments are steadily increasing each year, while overall enrolments remain flat. More than one tenth of all responding Canadian institutions have already fully implemented a strategic e-learning plan or institutional strategy for e-learning, hybrid learning, and/or online learning. About half of the respondents are in the process of either currently implementing or developing such strategies.

The U of L is representative of those surveyed institutions that are increasingly using blended and online learning as an additional option to face-to-face teaching on campus. Over the past ten years, the U of L has steadily increased online and blended course offerings across different disciplines at the graduate and undergraduate levels (see Figures 1 and 2). However, compared to other Canadian institutions that base their online teaching on a set of strategies (e.g., UBC, Queen's, Waterloo, Ottawa, Algonquin, Memorial), our university has not yet defined where online learning and digital technology fit within its broader teaching goals, and how it could offer our instructors and students choice in the management of future digital trends. What that means is that many of those instructors who are tasked to teach online at the U of L are currently left to their own devices with patchy support regarding instructional design, educational technology, and teaching development for online environments. Such

uncoordinated and often short-sighted approaches can have lasting and potentially negative consequences for the development of online teaching.

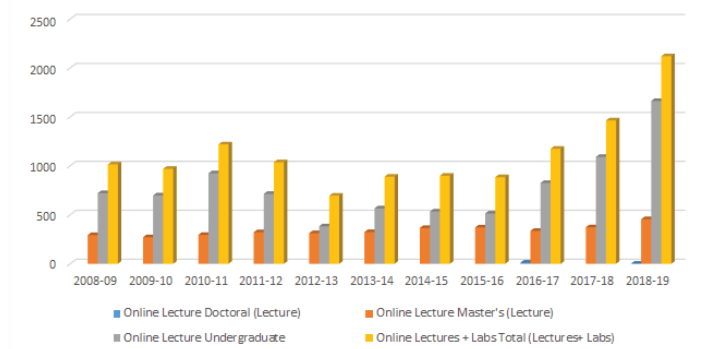


Figure 1. Annual online section registrations by level of study (4).

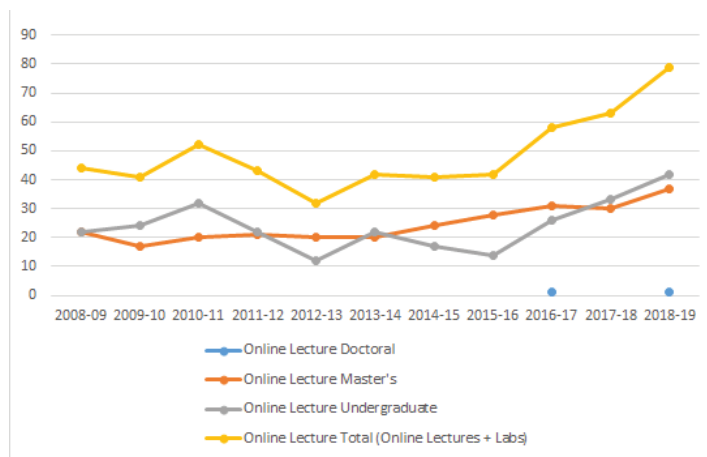


Figure 2. Annual number of online sections by level of study (4).

3. What Factors Affect the Adoption of Online Teaching in Higher Education?

The motivation for adopting specific forms of online teaching differs from educator to educator, from department to department, and from institution to institution. Bates (5) lists five key drivers: Student demand for improved accessibility and flexibility; educational ideas revolving around independent learning and open pedagogy; increasingly accessible online technology; external politics resulting in earmarked external funding; and the institutional development of strategies to support the growth and quality of online learning.

At the U of L, student demand and institutional interest in the development of online teaching have contributed to the adoption of online courses and programs throughout various faculties. Many students see the value in the increased flexibility that online and blended courses and programs offer by allowing much more flexibility for work and family commitments and remote or out-of-town living arrangements. Recognizing this demand, U of L administration is seeking to increase enrolment during the summer months in particular, when many students who are living and working

off-campus would otherwise enrol in online courses provided by other institutions.

Although such motivators do exist at our institution, numerous barriers and concerns about online teaching in higher education also must be addressed as we consider the direction and potential of online education at the U of L. These concerns need to be discussed by all parties involved in online education – students, faculty, and administration. For students, these barriers often involve misconceptions about the nature of online learning, such as assumptions that online courses may be easier or less time-consuming than learning in a face-to-face environment, that it involves only passive learning, or that online learning works equally well for all levels of digital literacy. For faculty, these barriers may involve a lack of training and support associated with the development and delivery of online courses and external pressures from administration, such as an increased workload without appropriate recognition, or an unrealistic expectation for increased student numbers within a course. For administrators, the barriers may relate to the lack of an institutional plan or strategy, and limited input from specialist support staff, both of which are essential to informed decision making concerning the implementation of high-quality online learning. Without a set of criteria for quality teaching signed off by all departments, “all senior administration can do is to try and persuade the departments to do things differently – if it is even aware of the problem” (5).

Academics who have developed and coordinated online programs such as Kim (6) see a need for campus-wide conversations “to think about online learning through a strategic institutional lens” so as not to miss opportunities for sharing resources and knowledge. We feel it is necessary to be proactive in the decisions surrounding online teaching and that such decisions must be “transparent [and] inclusive.” A lively and rigorous institution-wide discussion will allow us to realize the potential of online education through the sharing of ideas, voicing of hesitations, and raising of critical questions, all of which are necessary to find an agreement on the kinds of digital learning experiences we want to create for our students and the support that will need to be in place for this to be done successfully. Participating in the FLO Design course made us aware of some of these issues and motivated us to continue this discussion in a larger context by writing this article.

4. What Is FLO Design?

FLO (Facilitating Learning Online) Design is an online faculty development course that was offered to a group of U of L professors and instructors who were interested in designing current or future online courses. Unlike our academic counterparts in British Columbia, who have easy and mostly free access to government-funded teaching development programming, most post-secondary educators in Alberta do not currently find many provincial or local offerings to build their online teaching skills, a fact which led to the first facilitation of FLO by the Teaching Centre this spring (2019). Inspired by the *BC Campus FLO* series, our local offering intended to address the “lack of a theory or strategy,” which Harasim (7: p.111) has identified as a “major conundrum” in the discussion of barriers to online teaching. The course thus started with the formulation and theoretical groundings relevant for learning in the digital age before

participants embarked on the design and prototyping of authentic and meaningful learning experiences for their future online students. The teaching decisions were enacted in line with an explicit 'collaborativist' theory of teaching and learning (7: pp.105-141) to show students how design and activities are linked to principles underlying the practice. For some participants, FLO Design was a way to explore what quality online learning could look like, to engage in technology appropriate for online learning, and to experience it from the student perspective. This, in turn, led to the identification of some of the obstacles that both students and faculty may face when first engaging with learning in an online setting.

The structure of FLO Design was entirely different than other online courses that the three authors have taken in the past, including MOOCs from online course platforms such as Eliademy, EdX, or Coursera. In such courses, the content tends to be delivered through text documents or a series of video and audio files, forcing students to play a fairly passive role, where facilitator involvement (after the time-consuming design and production of the course) is minimal. In stark contrast to such courses, FLO Design required an immediate expectation of students' active participation and collaboration, which was met with regular, detailed feedback and guidance from the course instructor. Reflecting on teaching and learning strategies, participants completed an array of assignments leading to the final outcome of designing an online module or unit based on the same framework used in the design of FLO. The design and facilitation of the course allowed for a level of engagement and deep learning, commonly assumed to be limited to educational face-to-face interactions only.

Throughout the course, participants explored numerous open-source technologies that support online learning and collaborative digital work in multimodal ways. Participants thus experimented with transferring traditional face-to-face content into an online venue or creating new online course resources from scratch. Several of the technological tools were new to some participants, and while those chosen were all fairly user friendly, each participant navigated the material and assignments in a slightly different way. Even within Moodle, the platform through which FLO Design was taught, we learned about new functions that can be used for online teaching. For those cases in which we experienced technological challenges, the instructor made tutorials available to help troubleshoot in real time. It was clear to us that, if we were going to use these tools as instructors, we too would need to prepare tutorials and quick responses for those students who may struggle with unfamiliar technology.

In addition to technology-related challenges, we saw what an important role the virtual learning space plays and what workload and rigor are required of students if they are to navigate the virtual environment smoothly and succeed in high-quality online courses.

5. What Are Some of the Differences Between Face-to-Face and Online Teaching?

Our experience from FLO Design is that teaching and learning in an online environment are not necessarily different from a face-to-face

setting. We feel that *quality* online instruction can achieve many valuable elements of a face-to-face classroom, such as a safe and inclusive space for active discussion, collaboration, and experimentation, as well as numerous opportunities for instructor feedback on student work. This is not to say, however, that there are no differences to consider when designing and facilitating an online course. Indeed, several scholars have found that creating an online course involves a set of skills significantly different from those required for delivering content in a traditional face-to-face setting (8-11). Below we outline a few of these considerations.

Defining and assessing how we teach in face-to-face contexts

In our experience in FLO Design, as we developed online modules or courses, we found that our face-to-face teaching practice and presence could be transferred into a digital space, but that in order to do so successfully, we needed to first identify what aspects of our face-to-face teaching we valued and used (e.g., was discussion a key component to our face-to-face courses? Informal feedback? Collaborative assignments?). Having identified these, it became clearer as to how we might search for and employ specific digital tools that would allow us to recreate these components in a digital environment. This process of identification was challenging for some of us, because we had been teaching in face-to-face environments for a significant time and such elements of our teaching had developed organically in our teaching practice; thus, they were not always things that we had defined or consciously developed in our courses.

Instructional design and preparation

Although design and preparation are important in face-to-face teaching, they can often be adjusted throughout the duration of a course. In an online teaching situation, however, diligent up-front preparation is required before the actual course start date. While the biggest part of this up-front preparation will surely relate to the development and organization of instructional strategies as well as learning resources, another considerable amount of time will have to be spent on planning all forms of interactions within the online environment throughout the duration of the course. This includes general course messages, instructor feedback on activities and assignments, as well as the evaluation of the course and the learning of the students within it. The design approach (12) that we were exposed to in FLO Design demonstrated to us how an online course can be built so that all learning activities and assessments align with the greater goals of the course.

Dealing with technology

As we noted above, technology can often be a barrier to both students and faculty in the adoption of online teaching. Developing an online course may require instructors to learn how to use new digital tools or to develop greater proficiency with digital tools (such as Moodle) which they may already be using in their face-to-face classes. The use of such tools may be necessary for the instructor to effectively manage communication, delivery, and content of a course. Certain digital tools may also be new to students, and while some students may easily adapt to their use, others with lower levels of digital literacy may need significant support. Such

support can be time-consuming for the facilitator and the students, often requiring the creation of tutorials and the ability to answer questions and to help students with troubleshooting.

Another consideration regarding technology is that many instructors and students may not be aware of the digital tools that exist to help support online learning – particularly those that are open access and are not likely to be advertised or peddled by publishing or software companies. Learning about such tools and experimenting with their potential for online teaching is something that could be facilitated through professional development opportunities held by the U of L, or discussion and collaboration with other faculty or students engaged in online learning and teaching. It is worth highlighting that the context of a course and the teaching intentions should determine the use of technological tools. Once the purpose and goals, teaching strategies, and learning activities are clearly laid out, academic educators can choose the appropriate tools to realize the teaching intentions associated with them. Dealing with technology means acknowledging the multiple facets to it. Different suggestions have been made as to how to integrate technology into online teaching (13,14), but what they all share is the emphasis to reflect on the nature and effects of the digital technologies we intend to employ. Such reflection will help us anticipate and pro-actively avoid unintended outcomes such as accessibility barriers, steep learning curves, high cost, and privacy infringements (15).

Instructor presence and building of course community


A common misconception about online teaching is that once a course has been created it needs little to no facilitation. Although many MOOCs operate this way, courses without facilitation or with minimal facilitation are not what we consider quality online education. Instructor presence throughout the duration of a course is a key component in the creation and maintenance of student engagement and retention in online courses and is, of course, integral in the provision of high-quality feedback on student work. While instructor presence in a face-to-face class is visible and guaranteed, in an online course, a deliberate effort must be made to allow for the same if not greater ease of access to the instructor. This requires the instructor to clearly communicate modes and times of availability to students. In order to replicate the sense of a conversation or discussion that occurs so naturally in a face-to-face class, it is important for an instructor to be ‘VOCAL,’ an acronym devised by Savery (11: p.141) who suggests instructors be visible, organized, compassionate, analytical, and leading by example in order to have “productive learning environments, fewer management problems and more positive learning experiences with their students.” Such commitments to online course facilitation will help alleviate potential feelings of alienation that are common in online settings and that contribute to lower student engagement and completion rates.

According to research, the development of community significantly shapes the experience students have in online environments and positively impacts their social reinforcement, information exchange and outcomes (16). Woods and Backer (17: p.5) stress that “[i]nteraction is at the heart of the online learning experience.” The interactions that most significantly contribute to the building of an online community are introductions,

collaborative group projects, the sharing of personal experiences, class discussions, and the exchange of resources (16). In an online environment where the “flow of information is constraint by technology, equipment and the asynchronous nature.” (16: p.230), interactions with the instructor, with peers, and with the content will need to be designed alongside the planning of the content and the environment.

Moving Forward

As we hope to have laid out in this article, we are currently at a crossroads where we need to make many decisions regarding our involvement in online teaching. We have an opportunity to establish a standard of excellence in online learning that has immense potential. If we can create digital learning spaces that continue our commitment to quality teaching, small class sizes, and personalized and engaged learning, we can establish ourselves as a unique player in the increasingly competitive world of online postsecondary education. We strongly feel, however, that if we are to succeed in this, we need to develop a clear framework for online teaching which respects the concerns of all parties involved and which honours the core values of our institution.

The authors welcome your feedback, comments, and questions. Feel free to contact each or all of us. 

Three Changes *I Have Made To* My Assessment Practices *That Have Made* My Life Easier



By Richelle Marynowski

Richelle Marynowski specializes in classroom assessment practices and mathematics teaching and learning in the Faculty of Education at the University of Lethbridge.

Assessment for me is about two main goals: Ensuring that I am assessing what I think is important and making sure that the grade a

student gets is reflective of the knowledge that student has of the goals for my course—to the best of my ability. Focusing on these goals has led me to adjust my assessment and grading practices to better reflect those goals and, inadvertently, has made my life easier.

The first thing I have changed is making sure that each of my assignments and tests is aligned to what is important in my course – not necessarily the small details, but the bigger learning goals.

Yes, there are pieces of information and details that students need to know; however, I also want them to know when to use those pieces of information, and to use them effectively. In order to do this, I have created broad learning goals for my course and made sure that each assessment task that I ask students to do is completely aligned with those goals. Table 1 below shows the mapping of my course *Education 3601: Curriculum and Instruction for Mathematics Majors*.

Learning Outcomes Aligned with Summative Assessment Strategies

Students will	Summative Assessment
increase their understanding of the foundations of and approaches to mathematics education	Philosophy of Math Teaching Professional Learning Paper
gain familiarity with some of the current issues that surround mathematics education	Professional Learning Paper
gain working knowledge of mathematics education curriculum and resources as prescribed/recommended for schools in the Province of Alberta	Lesson and Microteach Manipulatives Presentation
become familiar with a variety of instructional and assessment strategies recommended for mathematics instruction grades K-12;	Lesson and Microteach Unit Plan
demonstrate knowledge of mathematics learning, curriculum planning, recommended resources, and instructional and assessment strategies through preparation of a unit of instruction to be delivered in practicum.	Manipulatives Presentation Lesson and Microteach Unit Plan

Table 1. Learning outcomes aligned with summative assessment strategies.

Through this mapping, I can see if I am over-assessing or under-assessing a particular part of my course. This also shows students the relevance of each assessment tool.

The second thing I have changed is leveraging formative assessment to better inform students of their understandings, and to better inform me of my teaching. Assessment strategies fall into two general categories, formative and

summative. Figure 1 (next page) illustrates a general breakdown of assessment practices and their purposes.

Assessment Strategies and Purposes

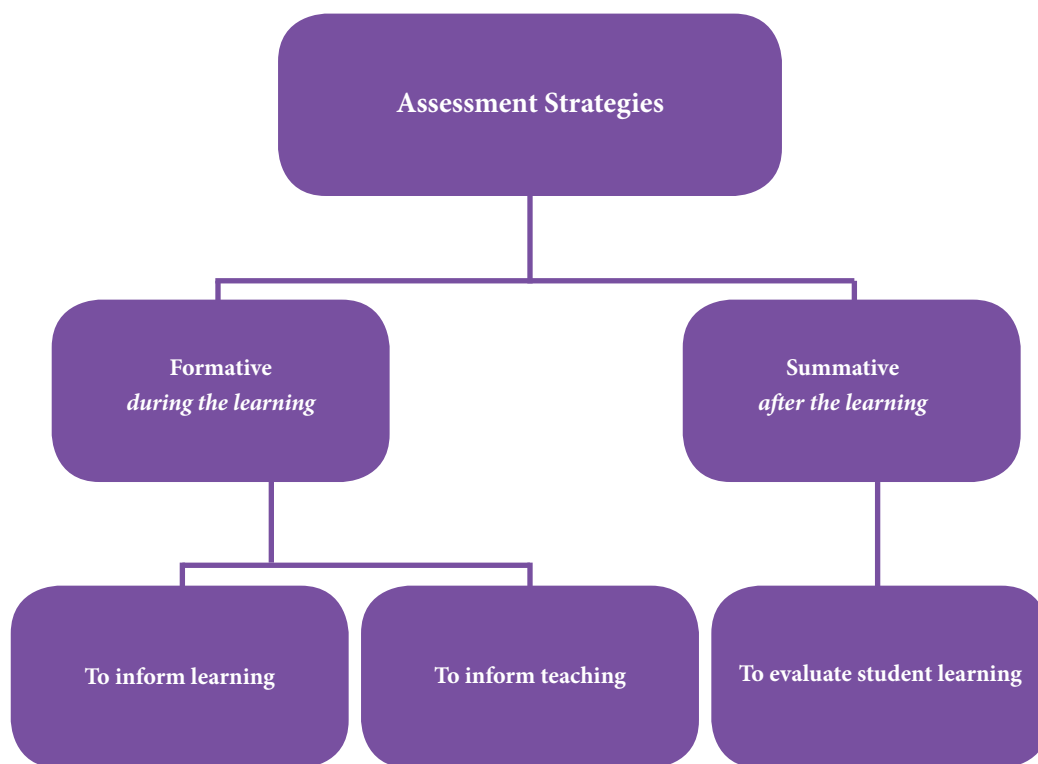


Figure 1. Assessment strategies and purposes.

Formative assessment is for feedback to students about their learning and to instructors about the effectiveness of their teaching. Summative assessment is what is gathered for evaluation purposes and marks. Ideally, students have a

chance to get formative feedback about their learning before they complete a summative task. I use exit slips, weekly or bi-weekly reflections, peer reviews, and formative quizzes to give feedback to students about what they know and

can do with respect to the learning in the course. Table 2 illustrates the mapping that I have done for a later version of the Education 3601 course, including the outcomes, instructional strategies, and formative and summative assessments.

Course Alignment Guide

Summative Assessment	Learning Outcomes	Instruction	Formative Assessment
Teach a lesson to classmates using optimal teaching practices (25%) Due:	become familiar with a variety of instructional and assessment strategies recommended for mathematics instruction grades K-12	<ul style="list-style-type: none"> teaching strategies within a mathematics classroom 	<ul style="list-style-type: none"> feedback from peers on lesson as taught feedback on lesson plan exit slips class conversations
	become familiar with a variety of instructional and assessment strategies recommended for mathematics instruction grades K-12	<ul style="list-style-type: none"> teaching strategies within a mathematics classroom 	<ul style="list-style-type: none"> feedback from peers on lesson as taught feedback on lesson plan exit slips class conversations

Table 2. Mapping of course outcomes, instructional strategies, and assessments.
Continued on next page...

Summative Assessment	Learning Outcomes	Instruction	Formative Assessment
Manipulatives Presentation (15%) Due:	increase understanding of the foundations of and approaches to mathematics education	• models of lesson planning	• peer feedback
	gain working knowledge of mathematics education curriculum and resources as prescribed/ recommended for schools in the province of Alberta	• connecting instructional tools with curricular outcomes • Curriculum Lab presentation	• instructor feedback
Bi-Weekly Blog (20%) Due:	gain familiarity with some of the current issues that surround mathematics education	• building connections between theoretical and practical applications	• weekly individual feedback • whole class feedback
A unit of instruction using either a UbD or PBL model (40%) Due:	become familiar with a variety of instructional and assessment strategies recommended for mathematics instruction grades K-12;	• linking curricular outcomes with effective instructional strategies	• exit slips
	demonstrate knowledge of mathematics learning, curriculum planning, recommended resources, and instructional and assessment strategies through preparation of a unit of instruction.	• modelling unit planning and deconstructing the elements of a unit plan	• peer feedback on unit plan • instructor feedback on developmental phases of unit plan

Table 2. Mapping of course outcomes, instructional strategies, and assessments.

This more detailed mapping allows me to plan formative assessment opportunities and assignment expectations. I create this mapping for myself when I am planning a course to ensure that my instructional and assessment practices align with the goals I have for my course. I will often include this mapping on my course outline, so that students can see that I have intentionally designed the instructional and assessment strategies to meet the goals of the course. This mapping keeps me focused on the goals and illustrates to the students the connection between the assessment items and the learning activities.

The third change I have made is having my grades in Moodle be shown as letter grades rather than percentages. I tell students at the beginning of the course that their grades will be communicated as letter grades and not percentages. At the University of Lethbridge, we submit final grades as letter grades, and as such, each of my assignments is recorded and shown to students in Moodle as a letter grade. This change has completely stopped students from asking for additional points on individual assignments. I also believe that using a letter grade better represents the specificity to which I can identify what a student knows and can do in my course.

No matter how good my assessment practices are, there is random error that cannot be accounted for in determining a student's true score in a course. Therefore, I feel that a letter grade is more accurate than a specific percentage value.


Each of these changes has occurred over time and during different iterations of my courses. I have found that each of these changes has helped keep my assessment practices in line with the goals for my course and has demonstrated to students that I am making purposeful decisions regarding the tasks I am asking students to complete. 



Photo Credit: ID 131711804 © Elnur | Dreamstime.com

by Olu Awosoga, Greg Patenaude, Gülden Özcan, & Katelyn Mitchell

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Introduction

The idea of mentorship is not new to post-secondary institutions. With increased pressure on time and workload, support programs have faded away. As a way to rejuvenate a mentorship program for new hires, the Teaching Centre at the University of Lethbridge (U of L) reimagined what a *Teaching Peer Mentorship Program* could look like at the University. A pilot mentorship program was rejuvenated at the U of L in Fall 2018 by linking newly hired faculty members (mentees) with senior colleagues who were willing to serve as mentors. Each peer mentorship team was expected to meet at least twice in fall and spring semesters, respectively, to share teaching and learning experiences, to support the mentee in building a solid foundation for their academic career, and to familiarize them with the institutional culture at the university.

Sharing life experiences may result in mentors expanding their leadership skills and gaining a personal sense of satisfaction, while mentees may receive valuable advice, expand their knowledge and skills, start building their professional networks, and finally, achieve or exceed life goals and aspirations. In this article, we share the background of the program, gained experiences from mentor and mentee, results of focus group interviews and observable gaps (limitations), and how this may improve future implementation of such a program in other post-secondary institutions.

Background

The Assistant Director at the Teaching Centre and a Teaching Fellow (Jeff Meadows and Greg Patenaude) held a meeting with interested scholars at the U of L to deliberate on this pilot initiative and to plan a successful implementation of the program. As a result, a document titled "Peer Mentorship Pilot Project" was circulated. The purpose of this project was to help foster a mentoring culture at the U of L between experienced, distinguished teachers (mentors) and other teaching staff (mentees) looking for support. The program strove to promote faculty well-being and success. In doing so, the program hoped to achieve the following:

- Develop a pool of mentors;
- Create a better network of like-minded teachers across campus;
- Share our knowledge and experience;
- Grow and develop as better teachers.

Mentors were recruited from a pool of *Instructional Skills Workshop* facilitators and mentees were recruited from the pool of new faculty hires. Involvement in the program was strictly on a voluntary basis. Mentors met with mentees approximately 2 to 3 times per semester and, given the sensitive nature of this relationship, discussions were completely confidential. Some important questions asked to enable a smooth pairing process included:

- What department are you in?
- What is your current teaching assignment?
- Would you prefer paired with someone from your department (if possible)?
- Please explain a bit about what you hope to get out of the mentorship process.

Each of these questions were designed to help pair mentees with a mentor that was best suited to meet their stated needs. Mentors supported the mentees with their knowledge and experience, and mentees discussed their concerns and were open to receiving feedback from mentors. Mentees were proactive in asking for advice and seeking help from their mentors. There were opportunities for mentees to talk to different mentors or the Teaching Centre when necessary to obtain different opinions on certain issues. Potential areas of concern for mentees included:

- Development of new courses (content, depth, faculty template for syllabus);
- Effective evaluation (provide study notes and feedback on students' concerns);

- Non-traditional methods of evaluation;
- Professional Activity Report preparation (probationary period or Continuing Term Appointment);
- Dealing with teaching nervousness;
 - Dealing with student complaints (about teaching methods, accent, textbooks, group assignments), plagiarism/cheating (*turnitin* software and how to handle it when it surfaces), student medical/mental issues (Counselling Centre, Accommodation Learning Centre, doctor's note), low-test scores (possibility of dropping lowest test scores), etc.;
- Moodle setup (tutorials and handouts);
- Peer evaluation;
- Education research and literature;
- Education conferences;
- Support services from the Teaching Centre.

The role of the mentor was to provide support, not assessment, and to be constructive, not evaluative. They should also be willing to be proactive and check in with their mentee on a regular basis. Some debriefing sessions were held with the mentors and mentees at the end of the pilot project to discuss and collect data to help determine the effectiveness of the program and to help improve the program for the future. At these meeting, some of the questions addressed included:

- What aspects of the mentor-mentee pairing process were effective? What aspects can be improved?
- What aspects of the program were effective? What aspects can be improved?
- How often did you meet? Was this enough/too much?
- Did the relationship develop meaningfully during this program? Why or why not?
- Did the mentoring/mentee (role, not person) meet your needs? What more would you like to see from the mentoring/mentee role?

Experience of a Mentee and a Mentor

One of the mentees summarizes her experience of the program by answering five questions.

See Table 1 on page 13 and 14.

Focus Group Summary

Mentee responses:

Overall, the mentees expressed appreciation for the mentorship program itself, and suggested that it provided them with an important resource for support and guidance. They also generally felt positively about the two-mentor system, particularly with regard to their ability to choose mentors from both within and outside of their own department, which many felt allowed them important access to broader perspectives. Some drawbacks the mentees identified included a lack of structure in terms of topics/objectives for their mentorship discussions and a lack of frequency when it

What were some of the highlights of this pilot project for you?

1. This project provided me with a venue to get to know the teaching environment here at the U of L and to improve my teaching skills by benefiting from experienced faculty members' mentorship.
2. When I first started, I was curious (and little concerned) about the student profile here and the kind of teaching taking place in other classrooms.
3. My colleagues from my own department were helpful, but with this program I got to know people from other departments and faculties, and their teaching experience.
4. In my conversations with my mentors, I felt I was in a safe space. I felt very comfortable asking questions related to teaching (and from time to time related to research and service, too) without being evaluated, being compared to others or being judged. Both mentors were sincere in sharing their own experience and knowledge with me while allowing the space for me to find my own way of doing things.
5. This program enabled me to learn the things that are usually not available on paper. In particular, my conversations with Dr. Awosoga helped me build a better confidence level. We talked about managing large classes, using TA's, guest speakers, group assignments, participation marks. Just to give a few concrete examples:
 - I learned from Dr. Awosoga's team-based learning practices. He generously shared with me his own peer evaluation forms that he uses for team-based learning.
 - I learned from his style of graduate mentoring. I have an incoming PhD student, and his insights were very helpful.
 - We went over my teaching evaluations together. The format was at first confusing for me as it was not reported in a style that I was used to. He showed me how to read the numbers and further assured me what student comments meant for my teaching.
 - We talked about extension of probation and tenure files, how to prepare them, what to include in these files.
 - Likewise, he familiarized me with available internal grants for my teaching and research.
 - I learned from him that I could have changed the room that was assigned for my class (through the Registrar's Office) within the first two weeks of classes—one big problem for me this semester was the classroom: I had 30 students but a room for 99.
 - One other thing that Dr. Awosoga taught me through this mentorship program was how to calculate final grades on Moodle. I knew how to use Moodle, and I have taken a Moodle workshop with the Teaching Centre. But this one thing, I always forgot to ask how to do at the end of the semester. I was going to calculate all of them manually. But he quickly showed me how to do it, then it made my life a lot easier.
 - I haven't encountered huge problems in my first year of teaching here at the U of L. But I knew who to go to if I had any problems, and this alone was very valuable.

What were some of the drawbacks of this pilot project for you?

1. Not many. I feel like I greatly benefitted from this program.
2. One thing might be that, one of my mentors, understanding that the first year is a busy year for a new faculty member, left it to me to arrange a meeting in the Spring semester. And I kept postponing it, because I was busy or I did not want to take her time. Maybe mentors could be in charge when it comes to demanding or scheduling meetings?
3. At first, having to attend meetings with two mentors sounded like a huge commitment. But it was definitely worth it.

Did the two-mentor pairing work for you? Why?

1. Yes, definitely. When I was first asked about this program, I had only one request: I wanted to be paired with a racialized faculty member. If this was not possible, I said I would like to be paired with a woman-identifying faculty member. By pairing me with two mentors, a racialized and a woman faculty member, they matched both my demands. I think when it comes to a mentor-mentee program like this one, it is important to share experiences with someone who may have similar challenges. I already knew what Bloom's taxonomy is, I took the Instructional Skills Workshop in my first week at the University of Lethbridge. I also took a similar workshop in my previous institution. However, since these workshops are designed for everybody, they are in fact designed from the dominant perspective, that is, from a perspective of white, able-bodied, upper middle-class male academics. Although beneficial to a certain extent, such workshops alone do not inform the participants about specific challenges a racialized, audible minority, working-class woman like myself may face and do not equip us with skills to deal with specific difficult situations we may face in the classroom. These challenges and skills are often not written on textbooks about teaching. The only way to find out is through experience sharing with academics with similar backgrounds. This program was helpful for me to understand how structural inequalities are affecting teaching and research experience of instructors from different backgrounds.
2. Two mentor pairing also worked for me as my mentors were from different faculties. One of my mentors was from my own faculty, but different department. In my conversations with her, I had a better understanding of the teaching expectations within my faculty. While with my second mentor, I got to learn about different practices in another faculty. These different experiences helped me navigate how practices differ in different departments and faculties.
3. Also, having 2 mentors meant getting to know two more people on campus, which is great when you are new at an institution. I got to know Dr. Awosoga through this mentorship program first. Then, we worked together in Support Network of Academics of Colour and Plus (SNAC+). Since he got to know me through these two venues, he nominated me for the ULFA's Gender, Equity and Diversity Subcommittee. In that sense, this program provides a good opportunity for networking across campus for newcomers.

Table 1. Experience of a mentee and a mentor. *Continued on next page...*

What recommendations would you make going forward for this program?

1. I like the fact that this program was semi-structured and semi-informal in nature. This format made me feel more comfortable in my exchanges with my mentors.
2. Pairings worked for me, I don't know if it was because I asked for certain criteria. Maybe at the beginning, you can ask specifically what expectations mentees have for pairings.
3. I think mentors should be taking the lead in scheduling the meetings as mentees might hesitate to initiate first contact

What other comments would you like to make about the pilot?

I am very happy about how this program worked for me. I would love to continue my conversations with my mentors in coming years.

Furthermore, one of the mentors summarized his responses as follows: Most of our discussions centred on

- Getting to know more about the Teaching Centre, Moodle setup (Tutorials & Handouts), Talking About Teaching, ISW, SPARK, FDW programs, materials on using small group discussions in the classroom is available on the Teaching Centre web page.
- Building better confidence level (dousing down anxiety and fear of student intimidation), managing large classes (use of TAs, guest speakers, and group assignments, participation marks, quizzes and exams – in-class or computer/take-home), suitability of classroom assigned to what is needed.
- Reflection on teaching from time to time, midway student's evaluation, how to handle negative comments on students' evaluation, and how to respond to each of these comments in PAR or STP file, Consideration for peer evaluation. Navigating their new environment and available resources on campus, networking with colleagues on campus (building positive relationship), library facilities, volunteer on any U of L committees, attending departmental colloquiums, organized events on campus (e.g., Scholar Speaker Series).

We also had discussion on research grants and publications: ULRF, CREDO, TDF (research grant proposals and ethics approval process – U of L and U of A), contacting U of L Research Services, A Light on Teaching, publications in reputable journals, engaging in scholarship of teaching and learning (SoTL), etc.

Table 1. Experience of a mentee and a mentor.

came to meetings with their mentors. Moving forward, each mentee noted that they do want to see the program continue, but many recommended that more structure be provided at the outset of the pairings. As well, several mentees suggested that participants in the mentorship program should be given more opportunities to provide feedback throughout the process. Other recommendations included: Setting clearer objectives for the program, expanding the participant base in terms of number and expertise, pushing to include faculty that are not brand new to the university but may still be seeking to improve their teaching skills, and, finally, creating a (potentially virtual) space for participants to connect with other mentors/mentees in the program.

Mentor responses:

Each of the mentors reported a positive overall experience with the mentorship program, highlighting their appreciation for the opportunity to form connections with their mentees and provide them with support, as well as the chance to learn from their mentee's own experiences and insights. Some mentors recognized a lack of consistency in mentorship meetings as a drawback, which was also an issue identified by several mentees. Another disadvantage that was noted was a lack of structure/

guidance in discussion topics, which was again consistent with the feedback provided by mentees. There was also some concern about mentee distribution, stressing the significance of ensuring that no interested/qualified mentors were left without the opportunity to participate. Nonetheless, each mentor expressed support for the two-mentor system generally, reporting that the responsibility was well-balanced and that they did not find the commitment overwhelming. All of the mentors felt strongly about the importance of the program and its continuation. Going forward, some recommendations further echoed those of the mentees, including the formation of an online space for collaboration and interaction between all mentors/mentees, as well as growing the program and expanding its participant base.

Conclusion

As a mentor/mentee/Teaching Centre, we have shared experience on success and failure, given honest and constructive feedback, discussed issues of confidentiality, unbiased support, and encouragement, while bringing our own pedagogical perspectives into this discussion. We believe that this contribution may shed more light on ways to improve mentoring relationship at post-secondary institutions.

Suggestions On The Way Forward:

We suggest regular meetings between mentor and mentee – this may be via email communication;

Building an online forum for new hires/instructors to post questions for mentors to answer or share views;

Mentees and mentors getting together at the Teaching Centre twice in a semester to exchange ideas – Community of Practice;

Clearly defining objectives and expectations (visions) from the onset for mentees and mentors – Is this about career or logistics support, teaching support, or what?

Distributing contacts and location of available resources at the Teaching Centre;

Creating mentor pool, definitive recruitment plan, length of meeting, advertisement;

Opening/closing ceremony for the program, financial support, training for mentors, and recognition (in form of certificate for mentors/mentees).


Further Reading

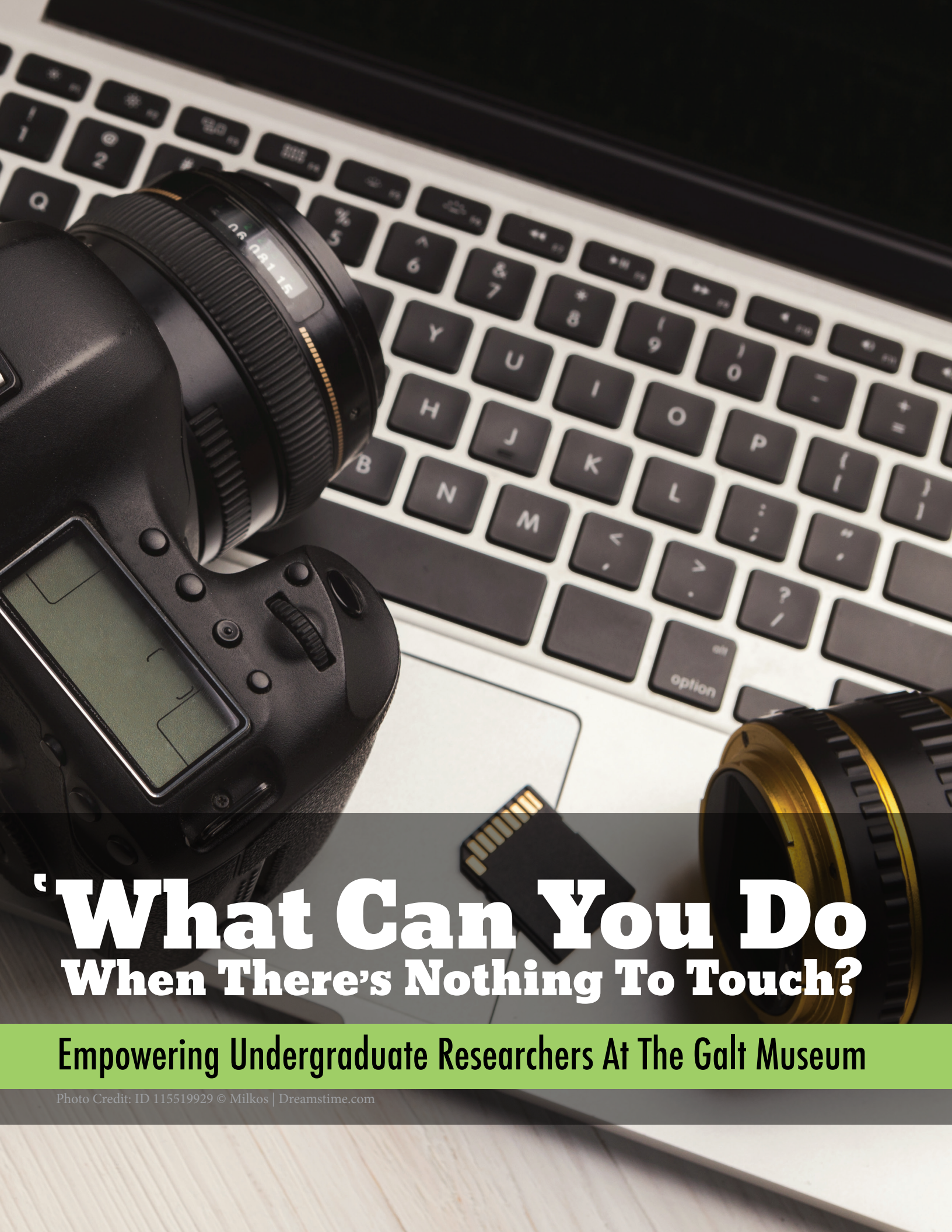
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'What Can You Do When There's Nothing To Touch?

Empowering Undergraduate Researchers At The Galt Museum

Photo Credit: ID 115519929 © Milkos | Dreamstime.com

By Kristine Alexander, Ashley Henrickson, LaRae Smith, & Ben Weistra

Kristine Alexander, Associate Professor of History, University of Lethbridge.

Ashley Henrickson, M.A., B.A., B.Ed. University of Lethbridge, past Museum Educator at the Galt Museum, current Associate at Know History.

Ben Weistra, Third-year Combined B.A. and B.Ed. Student, University of Lethbridge.

LaRae Smith, Fourth-year Combined B.A. and B.Ed. Student, University of Lethbridge.

Kristine Alexander

In the winter 2019 term, I worked with Ashley Henrickson, Education Coordinator at the Galt Museum, to supervise LaRae Smith and Ben Weistra, two University of Lethbridge applied studies students who wanted the opportunity to acquire skills and practical experience relevant to their career goals (both are interested in history and both want to become teachers). With the help of Stacey Gaudette-Sharp and Lukas Neamtu at the U of L Applied Studies Office, we presented LaRae and Ben with a challenge: To design an innovative and engaging research-based educational program about southern Alberta history that would appeal to the thousands of local schoolchildren who visit the Galt on field trips each year. We chose to focus on the First World War and the Great Depression, two parts of the twentieth century that shaped local history and (to make it that much more interesting!) that are under-represented in the Galt Museum's collection of artifacts. How can you teach young people about the past, we asked, when there is nothing to touch? Ben's applied study project focused on the First World War internment camp that operated in what is now Exhibition Park from 1914 to 1916, while LaRae investigated how dust storms, grasshoppers, and plummeting grain prices caused hardships for many southern Alberta farm families throughout the 1930s.

Working with the Applied Studies Office and local organizations like the Galt is an opportunity for U of L faculty to offer our students training

experiences that embody what scholars of teaching and learning, following George D. Kuh, call "high-impact educational practices" (1). These practices, which have remarkably positive effects on student engagement and success, include facilitating undergraduate research projects in which students invest a significant amount of effort over an extended period; encouraging students to apply knowledge and skills gained through their research in placements with community organizations and local employers; and providing opportunities for students to reflect on what they have learned and demonstrate their newfound competencies in public. In what follows, Ashley, LaRae, and Ben reflect on the value of their work in ways that provide compelling evidence of the value of involving undergraduate students in self-directed, community-engaged research projects with real-world applications.

Ashley Henrickson

It was important to Kristine and me that LaRae and Ben be able to take ownership of their applied studies work. My experiences participating in co-ops, applied studies, and independent studies as a student at the University of Lethbridge greatly shaped my thinking about what an effective work experience placement looks like. In the placements I completed (as an undergraduate, with Kristine Alexander, Lynn Kennedy, Associate Professor of History, and Amy von Heyking, Associate Professor of Education) I was given great control over my projects and was encouraged to think creatively to explore my research questions with independence and confidence. Unlike some internship positions in which students shadow an employee and are assigned new tasks each day, Kristine and I presented Ben and LaRae with significant, practical, and research-based problems that they could work to solve over an entire four-month term.

Although their applied study projects are very different, they were united by a shared question: How can we make 'hands-on' museum programming for young people when there is nothing to touch? At the Galt Museum, we are constantly working to create interactive learning opportunities for young visitors, and most of our educational programs give elementary, middle-school, and high-school students the opportunity to handle artifacts from our

teaching collections or to examine artifacts from our permanent collection. However, this model is challenging to employ when we lack physical objects about a specific period, or when the only objects from that period are too delicate to be handled on a regular basis.

Ben's primary task over the course of his four-month applied study was to find a way for student visitors to the museum to engage with the history of the First World War internment camp in Lethbridge. This camp, located at the Lethbridge Fair Grounds (now Exhibition Park), was in operation from September 30, 1914 until November 11, 1916, and interned men of Ukrainian, German, and other Eastern European descent (or men who were *presumed* to be part of these 'enemy alien' groups). Nearly all of these men were civilians with no ties to foreign militaries when they were taken from their families and imprisoned without trial.

Sixteen men escaped from the Lethbridge camp throughout its operation, including six prisoners who escaped together in April 1915 by digging a 111-foot-long tunnel. As these six successful escapees fled during the night, they abandoned their makeshift digging and defense tools, including shovels, an augur, a fan, and a fake gun at the end of the tunnel. These tools were subsequently donated to the Glenbow Museum in Calgary. There are no known photographs of this camp and very few artifacts, making Ben's task of creating hands-on learning experiences even more challenging. The escape tools at the Glenbow—which were made from garbage in the dead of night—are a powerful symbol of the prisoners' desire for freedom. However, students visiting the Galt do not presently have access to this important material past of Lethbridge's history.

Ben quickly began exploring technologies which could put these powerful cultural objects in the hands of students in Lethbridge. In particular, he examined how photogrammetry could be used to create 3D models (in virtual reality or as physical replicas) with which the students could interact. Ben drew on research about historical thinking to create lessons which used these replicas to engage students in the process of doing historical thinking. Historical thinking, as described by Peter Seixas in *Big Six Historical Thinking Concepts* and the "Historical Thinking Project" (2), is a framework for helping students

think critically about the past. Instead of telling students what happened in the past, students are asked to question their understanding of the past and look at the evidence this knowledge is based on. Ben began his lesson plan by having the students analyze the escape tools as evidence from the past, asking them to consider how the tools were made, and for what purpose. After deducing that these objects were used to escape from the camp, he asked the students why men would have wanted to escape from the Lethbridge camp. Answering this question requires students to take a historical perspective by considering the conditions of the camp and why the men were being held there. This simple but powerful question, anchored in the engaging and mysterious escape tools, is an important learning tool, because it allows us to discuss a very complex part of Alberta's history at a level which grade three students (who are generally eight and nine years old with little background knowledge of the early twentieth century, interment, or the First World War) can understand.

To compensate for this lack of artifacts, LaRae suggested that we ground the simulation in oral histories as well as archival research.

LaRae's project was equally challenging. We asked her to design hands-on educational programming for grade five students (ten and eleven years old) about life during the Great Depression. Again, we had very few physical objects in our education collection which could be used. As an extra layer of difficulty, we asked LaRae to explore how games and simulations based in historical research could be used to help students understand the challenges and choices faced by southern Alberta farmers and their families during the Depression. To compensate for this lack of artifacts, LaRae suggested that we ground the simulation in oral histories as well as archival research. In addition to collecting archival data about precipitation rates, market prices, and living expenses, she also completed three oral history interviews with men and women who were children in southwestern

Alberta during the 1930s. This rich and detailed evidence base serves as the basis of the game. The students then have to decide which crops to plant and what farming techniques to use by engaging with primary sources from the 1930s, including historical newspapers, weather reports, oral testimonies (about childhood memories of dust storms, for instance), and photographs.

By giving Ben and LaRae concrete, complex, and meaningful problems to solve, they were able to take ownership of their projects and learn important skills. This partnership was also incredibly beneficial to the museum as it addressed problems that we were actually grappling with. The work that Ben and LaRae did will be used in our programming for years to come.

Ben Weistra

As third-year history and education major with a particular interest in the world wars, I wanted to pursue an applied study in order to build on and apply the historical and education-based aspects of my university training. During my applied study with Kristine Alexander and Ashley Henrickson, I used archival research and new technologies to design and teach new educational programs about local history and the First World War for young visitors to the Galt Museum. This gave me practical experience and transferable skills while providing inspiration and ideas for my education plan.

When we first met early in the term, Kristine and Ashley suggested that I draw on concepts from *The Big Six: Historical Thinking Concepts* to help form my lesson plan. This approach helped me to create lesson plans that would engage students in the process of *doing* history (interpreting, analyzing, questioning) instead of simply telling them about things that had happened. I was able to see how physical objects could be used as evidence to help students learn about the past while teaching elementary classes with Ashley at the Galt. The students' engagement with and excitement about the objects reinforced what I had read in the *Big Six*, making me determined to find a way to incorporate primary sources into my lesson plan.

I was able to grow as an educator by gaining more teaching experience and learning classroom

management skills while teaching groups of school visitors. Getting to work in the museum also opened up many other opportunities and experiences that would not have been possible otherwise. One of these experiences occurred when Amy Benoit, the curator at the Galt, Ashley, and I discussed the idea of using 3D-printed models or augmented reality/virtual reality (AR/VR) displays of escape tools from the Lethbridge internment camp to teach grade three students in 'Ukrainian Connections.' In addition to learning and applying new concepts as an educator, I was also able to develop as a historian by working with historical documents from the University of Lethbridge archives, the Galt archive, Library and Archives Canada (Ottawa), and the Whyte Museum of the Canadian Rockies in Banff. Having the opportunity to work both with digitized archival sources (from Library and Archives Canada and the White Museum) and actual archival sources at the U of L and the Galt made me realize the wealth of attainable sources that exist outside the university library and online journals which are the usual source bank for papers in many university classes. I was able to analyze primary sources such as microfilms of Lethbridge Herald articles, and letters, menus, and diaries from the Lethbridge internment camp.

This project not only made me realize the potential of using 3D/AR/VR technology in historical research, museum programming, and my future career as a teacher, but it also helped to establish a deeper ongoing working relationship between the Galt and the U of L Agility Program. Furthermore, the 3D/AR/VR project was able to provide me with new experiences like taking part in the Agility idea pitch competition where I was able to discuss my idea in front of judges and entrepreneurs. Experiences like these allowed me to gain confidence in pitching an idea to a group and allowed me to see the other fantastic innovative projects going on at the U of L. As an added bonus, I was able to win the idea pitch competition and gain further connections and funding.

LaRae Smith

Researching and designing "Harvest," an immersive simulation program for grade five visitors to the Galt Museum, was a truly extraordinary experience. Through this process I have grown as a historian and an educator. I

grew as a researcher as I was stretched to my limits and beyond in my search to find the data needed to complete this program. My research had the end goal of eventually producing an immersive, game-based simulation that would allow students to experience what it was like to live on a farm in southern Alberta during the Great Depression. With such a specific research goal in mind, I quickly found that the methods that I had become comfortable with for doing research to complete assignments for traditional university courses would not be sufficient.

Through excellent tutelage and guidance that I received from both Ashley and Kristine, I discovered new research avenues and subsequently became quite proficient in them. One of my favourite research opportunities, which was necessary for this project's success, was that of gathering oral histories. I interviewed four individuals who lived on farms near Champion, Raymond, and Hill Spring, Alberta during the Great Depression. This project was such a fantastic introduction into the possibilities that oral histories present. I also have become more proficient at finding other primary source materials in the archives. I would not feel I had done as complete of a job on this project without the newspaper articles, photographs, and farming records that have been included and have enriched this program in making it more accessible for students.

By combining oral history interviews about individual memories with historical data about climate, farming technology, and crop prices, newspapers, and photographs, I feel as though this program offers a powerful combination that will help to speak to the student participants in a meaningful way. It was through the development of this program, and essentially stumbling upon this combination of numerical data and oral histories, that I experienced growth as a historian. It is with that same combination that I hope the students will experience growth as well. This growth and a multi-dimensional understanding of the Great Depression in southwestern Alberta came about because of the project-based learning that I did by researching and ultimately developing this educational program. Unlike a traditional university course, this applied study through the Galt Museum allowed me to learn by completing projects and diving into the archives, and I felt like I was much freer to explore and discover as I was learning


and developing the simulation program. I say multi-dimensional understanding, because I was simultaneously researching numerical data, and seeking out personal accounts of people from the time period. By doing so, and then shaping it into a form that grade five students could engage with, I was forced to simplify and condense, which I believe helped to enhance my growth as a historian.

It was for many of the same reasons that I believe that this experience helped me grow as an educator as well. I grew as a historian through the actual designing of this program and I grew as an educator though taking into consideration the needs and the abilities of the students who will be participating in this program. Without my previous educational experience, I would not have been nearly as well-equipped to face this opportunity and puzzle.

My past experience teaching programs at the Galt Museum was particularly helpful in shaping my understanding of what this program could look like, or run like, in a museum setting. It is different teaching in a museum than in a traditional classroom, because classes being taught at a museum are only there for an hour or two, students are surrounded by new and exciting things, and this is probably their first time meeting the museum instructor. Over time, I have developed an active understanding of how those factors can impact a class coming to learn in a museum setting, which made me better equipped to design a successful program. Despite my previous experience, I feel as though I made huge progress in further developing my understanding of what factors need to be considered when designing an educational program for a museum setting. As a historian and an educator, I am better equipped moving forward into the rest of my career because of the extraordinary opportunity that I had working on this project.

Conclusion: Kristine Alexander & Ashley Henrickson

It is a real pleasure to work with undergraduate students like Ben and LaRae on their complex and creative research projects, as they discover the joys (and occasional frustrations!) of historical research and created cutting-edge, new teaching tools for the Galt Museum. They presented their projects to an enthusiastic

audience at the 3rd Institute for Child and Youth Studies symposium in April 2019, and their projects were recently featured in the Lethbridge Herald, a Global Television news story, and on CBC Radio. In May 2019, Ben began a second applied study at the Galt and is currently translating his research on the internment of Ukrainian-Canadians in Lethbridge during WWI into a community program for families and a lecture presentation for seniors and adults. After completing her applied study, LaRae joined the Galt staff as a programing assistant and is continuing to work on the simulation which will launch in September 2019. This partnership between the university and the Galt was successful on multiple levels—largely, we believe, because we asked Ben and LaRae to solve real problems and gave them the space and resources to do so. 



Cellphones & Education

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By John Poulson and Shyla Bruvall

John Poulson is an Associate Professor in the Faculty of Education at the University of Lethbridge.

Shyla Bruvall ('19) is a recent graduate from the Education program at the University of Lethbridge.

There is a growing concern regarding the role of cellphones in the classroom that has facilitated a robust discourse among both educators and administrators. In order to gain a comprehensive understanding of the benefits and deterrents, we first examine the existing literature.

Cellphones are ubiquitous in classrooms and there are many authors that suggest that cellphones are important learning tools (1-5). There are also many authors suggesting that

cellphones are problematic in the classroom (6-11). As cellphones become more prevalent in our schools, several authors have also explored the impact they are having on our students' well-being (12-14).

Literature Review

Nielsen and Webb (1) in their book suggest that there is great power in cellphones and teachers only need to know how to mobilize

this wonderful force. They suggest that “teachers can turn cell phones into an educational opportunity instead of an annoying distraction” (p.vii). Lucking, Christmann, and Wighting (2) state that instead of ignoring cellphones, science teachers should embrace them to enhance their teaching and professional lives. They suggest that access to applications such as calculators, cameras, dictionaries, and encyclopaedias is invaluable to student learning. Lucking et al. (2) extol the virtue of cellphones by saying that “Bill Gates has argued that cell phones, not laptop computers, hold the most promise for the spread of one-to-one computing, particularly for students with limited resources and especially for students from developing nations” (quoted in 2: p.2).

Cellphones can give up-to-date information that can be valuable. Tessier (5) maintains that textbooks are outmoded. He states that “[a]n alternative to using textbooks as sources of knowledge is the modern smart phone” (p.46). Further, Tessier states that “many students feel that the use of cell phones helps their learning and is not a distraction” (p.46).

Warnich (3) suggests that cellphones can be important in history classrooms for similar reasons including access to up-to-date information. Tremblay (4) maintains that cellphones are important for a number of reasons; student interest and up-to-date information are two. He gave his students a survey asking about cellphone use in the class and the “[s]urvey results show that students who either used or watched others using such a system enjoyed the activity, reported less boredom in class, found the activity made the class more interactive and were more emotionally engaged in the classroom” (p.217).

In a survey of 92 pre-service teachers, Thomas and O'Bannon (15) found that cellphone functions such as “calculator, access to the Internet, and audio player features provided instructional benefits” (p.11). Further, the survey revealed that more than half of the respondents “identified anywhere/anytime learning opportunities, increased student engagement, opportunities for differentiation of instruction, increased communication, and increased student motivation as benefits of using cell phones in the classroom” (p.12).

Yet, Gaer (6) states that not all is positive with regard to the use of cellphones. She states: “The inappropriate use of cell phones to engage in social media in college classrooms is a pervasive problem that many college instructors have complained about” (p.176). Katz (16) found a way to remove cellphones in her classroom by offering students extra credit if they attended class and left their cellphones off on the front desk. She claimed overall benefit, stating: “One student summed it up, saying that other students ‘may think it’s just for extra credit, but in reality it’s helping them out in more ways than they think.’ In addition to learning about psychology, the students also learned something else--a little bit about what life was like before the dawn of cellphones” (para. 11).

Lepp, Ji, Barkley, and Salehi-Esfahani (7) suggest that cellphone use is positively correlated to unhealthy lifestyles. That is, greater cell phone use is related to “‘ill-being’ (operationalized as psychological issues, behavior problems, attention problems, and physical health)” (p.212). Further, they found that the more college students used their cellphones, the worse their cardiorespiratory fitness was. Another important finding from Lepp et al. (7) was that high-frequency users of cellphones mentioned more often that a motivation for cellphone use was boredom. Lepp et al. (7) found in their analysis that “cell phone use was negatively related to GPA and positively related to anxiety” (p.213).

Cellphone/social media use in particular by college students is problematic. Benjamin (8) describes the widespread social media/cellphone addiction prevalent in current US college classrooms. He suggests that inappropriate use of cellphones to engage in social media in college classrooms is a pervasive problem that many college instructors have complained about. Froese and colleagues (9) found that there were high rates of students taking cellphones to class and using them during class on non-class related activities. They indicated that prior “experiments have demonstrated that cell phones distract students from learning” (p.323). Further, Froese et al. (9) postulate that if conversational cellphone use while driving is dangerous and people cannot drive well while multitasking, then perhaps students cannot learn well while multitasking. They state: “If conversational cognitive load increases accident

risk for drivers, the same cognitive load should increase errors on tests of lesson material presented while students are texting” (p.323). Their experiment tested students’ test-taking skills while texting and while not texting. The results were that students performed 30% worse while texting during the test. This figure of a 30% loss in performance is interesting and alarming.

Ellis, Daniels, and Jauregui (10) most directly assessed the effects of texting on performers in a real classroom context. Students in the experimental condition sent three text messages to the instructor during the lecture. The control group presumably had turned their phones off. Experimental students scored significantly lower than control students did on a pop quiz at the end of class.

Harman and Sato (17) correlated cellphone texting use and student grades. Their results show that the greater the amount of sending and receiving students engaged in, the lower their GPA (as reported in 11: p.38). Chen and Yan (11) also found in their meta-analysis of cellphone use that according to the cognitive theory of multimedia learning approach (18), mobile phone multitasking may impair learning because mobile phone use takes up the limited capacity of learners’ information processing channels and leaves insufficient space for meaningful learning (as quoted in 11: p.39).

In response to the literature suggesting the problematic nature of cellphones in educational settings, teachers are taking steps to remove the devices altogether. For instance, the province of Ontario is moving to ban cellphones in all public-school classrooms starting in the fall of 2019 (19). Likewise, France has had a ban on cellphones in schools since September 2018 (20). This is a common course of action in both secondary and post-secondary institutions; however, there is evidence to suggest that their removal is not only ridding the students of a potential educational tool but is also having adverse effects on their ability to learn. As Hartanto and Yang (12) postulate, “smartphone separation has not only emotional but also cognitive consequences” for students (p.334).

The emotional ramifications of smartphone separation in students manifest in both anxiety and stress. Cheever, Rosen, Carrier, and Chavez (13: p.295) found that university students

“became significantly more anxious over time” when they did not have access to their mobile devices. They attributed this to a combination of separation anxiety and distinct fear of missing out on any events, conversations, or news while unable to access their device. Likewise, Tams, Legoux, and Leger (14) examined the potential correlation between nomophobia, the fear of not being able to use one’s smartphone, and stress. Tams et al. (14) concluded that through their extensive research that “the direct effect of Nomophobia on stress was established” (p.6).

In a series of studies, Hartanto and Yang (12) explored more directly the link between smartphone separation, anxiety, and executive functions. Though they acknowledged the potential benefit of cellphones in educational settings, Hartanto and Yang warn about “the potential side effects of smartphone usage for impaired higher-order cognitive abilities” (p.334). They suggest “a blanket restriction on smartphones in school is likely to be more harmful than beneficial, because smartphone separation triggers anxiety that, in turn, adversely affects students’ cognitive functioning” (p.335).

As Lepp, Barkley and Karpinski (21) state, “[t]here is growing evidence that cell phone use is negatively associated with academic performance as well as mental and physical health” (p.349). Their opinion is that, in tertiary education settings, “policies regarding the appropriate use of cell phones in educational settings need to be carefully considered” (p.349).

Opinion

Cellphone use has become a topic of concern. Is this a case that students have bad manners, contempt for authority, they show disrespect for elders, and love chatter in place of exercise? The preceding sentiment assigned to Socrates suggests that young people in the 4th century BCE were not meeting Socrates’s standards for behaviour. He seemed to be concerned about the future, because the young people were exhibiting lower standards of behaviour by not engaging in the same activities as the previous generation. Are cellphones in the same category, that older generations are not able to see that cellphones are merely a current manifestation of change?

This idea suggests that perhaps education will continue to adapt just as it has following the introduction of overhead projectors, computers, and the internet. The difference is that overhead projector use has not been linked with lower physical and mental health as well as increased anxiety. It seems that moving forward with cellphone policies in universities must be done carefully with much research. Practical suggestions might begin with Lepp et al. (21), who suggest “students should be encouraged to monitor their CPUse [cellphone use] and reflect upon it critically so that it is not detrimental to their academic performance, mental health, and subjective well-being or happiness” (p.350).

Like many other tools, there is no inherent value or detriment to cellphones in schools; their use in the classroom has both positive and negative applications. Rather, it is the classroom culture and the teacher’s method of classroom management that dictates their value. While it is no surprise that cellphones can be a major disruption to student learning, it would be a disservice to look past the potential they possess. Cellphones represent immediate access to information, a connection to the world outside the classroom, and a familiar way to engage students with the material.

Students today have never lived in a world without cellphones and it would be foolish not to expect cellphones to play a significant role in their lives, including their education.


The largest point of contention that seems to arise in this debate is that of cellphones as distractions. There is ample evidence to suggest that when in the classroom, cellphones often prove to detract student learning. The easiest solution to this, and indeed the solution that many educators adopt, is the removal of the distraction in its entirety. This solution, though effective in its goal, creates its own problem. As we are now seeing in secondary and post-secondary students, there is a growing dependency on cellphones resulting

in anxiety and stress when they are unable to engage with their devices. As that dependency continues to grow, it is likely that we will see a corresponding surge of separation anxiety, prompting the question: Is banning cellphones in the best interest of the student?

Students today have never lived in a world without cellphones and it would be foolish not to expect cellphones to play a significant role in their lives, including their education. As instructors, it falls to us to find ways to ensure they are beneficial as opposed to inimical in our learning environments. Cellphones are a part of the world we live in and classrooms cannot exist in a vacuum. As a result, instructors must find a way to work with them, not against them.

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Models For

Effective And Fair

Student Evaluation Of Teaching

By Jennifer Mather and Graham McKenzie

Jennifer is a Professor in the Department of Psychology at the University of Lethbridge and former winner of the Medal of Teaching Excellence.

Graham is a graduate of the University of Lethbridge and a graduate student in the Department of Psychology.

Introduction

Jennifer: As an instructor for several decades, I have watched my teaching gradually evolve to be much more informal and much less teacher-centred. But although these methods have been proven to help students learn better, I am aware that evaluation of teaching by students has not kept up with the advances, but is essentially lecture-centred. As well, having read the literature on evaluation biases and being in the psychology department, I was well aware of the unconscious biases of students during teacher evaluation (1). When the *Gender, Equity and Diversity Committee* of the University of Lethbridge Faculty Association (ULFA; 2) sponsored a move by the Association to minimize the effect of this flawed process, I was moved to ask the Teaching Centre for some money in the summer of 2018 to look into what could replace the standard student teacher evaluation. I recruited Graham to assist me.

Graham: Having been both a teaching assistant (TA) and a student at the university, I was able to gain perspective from both the teaching end and the student end of education. Throughout my undergraduate studies and my time as a TA, I was also able to see many examples of nonstandard teaching practices.

Student evaluation of university teaching has been a subject of research and controversy for decades as it is affected by many variables. Feldman (3), Wachtel (4), and Clayson (5) are examples of studies on teaching evaluations; see the comment by Gilbert (1) about surveys' lack of usefulness. Written feedback about courses is affected by class size, difficulty, and timing; student motivation, goals, and learning styles; instructor personality, purpose, and attractiveness. Yet, these ratings are also based on lectures, for the most part. Active learning strategies, which improve student learning (e.g., 6), are not well evaluated by standard questionnaires such as that of our Faculty of Arts & Science, which asks lecture-centred questions covering areas such as punctuality, delivery style, and explanation of ideas. The computer-based teaching assessments are mandatory, yet do not evaluate what many of the best teachers do well, and receive a response rate often less than 50%. Good teaching needs to be rewarded with appropriate and good evaluation.

Why use a variety of teaching methods? Betoret and Thomas (7) diagram the learning process for university students, as 'knowledge acquisition.' Yet, lecturing conveying facts results in students learning them only 50-60% of the time (8), which is no better than reading an outside information source (9). In contrast, active learning strategies including games (10), the flipped classroom (11,6), and inquiry in teams (12) are very effective not only for student learning of facts, but also for deeper learning (13). Many good

teachers use a variety of teaching strategies, including inquiry learning in groups, student poster presentations, essays, seminar classes, and opinion papers. Yet, at the end of the semester, the student teaching evaluations do not tap into what knowledge and skills students acquire.

Despite the possible variety, teaching evaluation almost always assumes that the delivery is teacher-centered. Shevlim, Banyard, Davis, and Griffiths (14) found that 69% of student evaluation of teachers depended on 'charisma factors,' reflected in the paper title "Love me, love my lectures." This leaves room for potential bias in teaching evaluations, due to factors such as gender, race, language proficiency, age, and attractiveness (2) affecting the outcomes of student evaluations. Any evaluation can also either be formative or summative. Teacher-specific evaluation that provides useful feedback to instructors is known as formative evaluation, while formal evaluation that is used to compare instructors is known as summative evaluation (15,16). Evaluative bias puts many teachers at a disadvantage in summative evaluation of comparative competence, as it fails to accurately evaluate a teacher's ability. It also does not provide feedback that can be used for formative evaluation, for teacher improvement. ULFA reports that such biases are so obvious that such student evaluations should not be generally used, and the new *Faculty Handbook* will emphasize that the evaluators must educate themselves about the problems before using them. Given such a variety of teaching methods, it is also necessary to generate a teaching evaluation that can move the spotlight off the teachers, and onto the whole learning process.

Background

This study looks at how evaluation techniques, including matching such expectations with student reports of learning outcomes, allow us to better evaluate the effectiveness of active learning and student-centred teaching for evaluation. This paper reports on (a) how to 'level the playing field' between standard lecture-test style classes and non-standard classes that use active or student-centred learning, (b) how to create an evaluation system that moves the spotlight from being totally focused on the instructor, and (c) how to create a tool that can be used to generate both summative and formative evaluation for teacher improvement. Using publications on undergraduate learning outcomes, discussions with faculty members, and employees of the university's Teaching Centre, we first generated a set of principles on which student evaluations should be based. Then we constructed three potential models of evaluation, which are presented below.

What Students Need to Learn

In what areas is there guidance as to how non-traditional and traditional teaching might be evaluated? There are five areas of student competency that a student could expect from a course, and many organizations have stated what outcomes should comprise undergraduate education. The American Psychologic Association (APA) produced the *APA Guidelines for the Undergraduate Psychology Major* (17). These lay out five goals for skills that our graduates ought to have. These skills also parallel the Conference Board of Canada's *Employability Skills* (18), *Bloom's Taxonomy of Education Objectives* (19-21), the American *National Survey of Student*

Engagement's Indicators and High Impact Practices (22), and the Association of American Colleges and Universities' *High-Impact Educational Practices* (23). The goals laid out in these documents were found to be consistent with the statements of goals, outcomes, and philosophies of each of the five faculties of the University of Lethbridge. Each of the faculties also made a commitment to liberal education. Therefore, the university's

definition of the *Fundamental Principles of Liberal Education* was also used to generate the competencies. The five areas are not mutually exclusive, nor is it the case that a single teaching strategy is the only way to achieve one of these results, and some teaching strategies and/or activities will satisfy several outcomes simultaneously (see Table 1).

Competencies	General Skills	Specific Skills
Process	Communication	Oral
		Written
		Artistic Creation
	Working with others and Application	Group Work
		Practical Application or Practicums
Content Acquisition	Critical Thinking	Analysis
		Synthesis
		Presentation
	Knowledge Base	Numeracy and Quantitative Thinking
		Science
		History
		Global Perspectives
		Aesthetics
	Social Dimension of Education	Ethics
		Values
		Diversity
		Responsibility
		Self-Knowledge

Table 1. Areas of student competency produced by the *Six Models of Learning Results*.

Model 1 – The O'Donnell Model

In this model, there is no standard teaching evaluations by students. The premise of this model is that instructors are responsible for putting together their teaching dossiers, and therefore instructors should be responsible for gathering written feedback from students. This can be done through student focus groups, and peer or faculty evaluations, and any other appropriate resources. Ryerson University recently conducted an arbitration between the university and its Faculty Association (15), and concluded that student evaluations of teaching are too biased, but said: "Extremely comprehensive teaching dossiers ... help paint the most accurate picture of teaching effectiveness" (p.8).

Model 2 – The Mather-Orr 16-question Model

This model moves the spotlight from the teacher by focusing on four separate areas of the learning experience: Student effort, instructor teaching methodology, course content, and the instructor, directing four questions to each (see Figure 1).

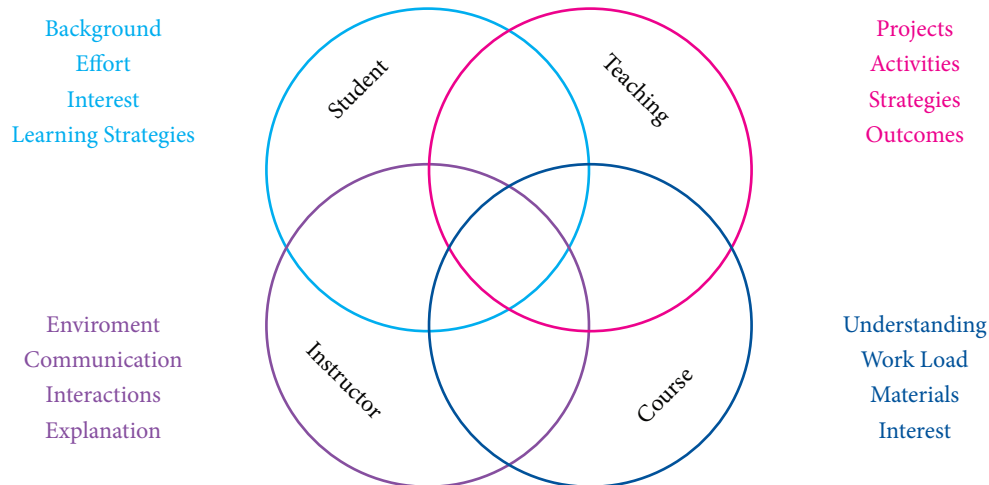


Figure 1. A diagram of the distribution of questions for student evaluation encompassing the four areas of learning: Instructor qualities, course content, instruction methods, and student effort.

Model 3 – The Summative/Formative Question Bank Model

This model of student evaluation of teaching has two components, a short summative evaluation of four questions that appear on all teaching evaluations, and a test bank of 183 questions, which cover a wide range of teaching circumstances and from which more specific questions can be chosen by each teacher.

Part I: Summative questions (mandatory)

1. The instructor created an environment that supported my learning
2. The course provided me with a deeper understanding of the subject matter
3. In-class activities (class discussions, individual work, group work, field trips) improved my understanding of the subject matter
4. I worked hard in this class

Part II: Course specific question bank (optional)

The instructor chooses appropriate questions from the bank of 183 questions. Areas include communication, interest in student experience, opportunity for discussion and group activity, encouragement of multiple perspectives, encouragement of integration/application, respect for others, learning expectations and feedback, component evaluation, online learning environment, specific competency learning opportunities, practice at communication, research skills, tutorial/lab, teaching assistant.

Conclusion

There is no such thing as a ‘perfect’ student evaluation of teaching, and these three models are quite different from one another. These principles and models served as the foundation for discussion during a presentation at the SPARK Teaching Symposium 2019; there was no consensus on the best model but much discussion of the process. We hope that this investigation will lead to the Faculty of Arts and Science reevaluating its computerized student assessment of teaching through its Committee on Research and Teaching.


Acknowledgements

This research was supported by a grant from the University of Lethbridge Teaching Development Fund. We thank Janay Nugent for providing a review of biases in teaching evaluations. We thank the individuals who discussed these ideas with us, particularly Dan O’Donnell, Doug Orr, and Jeff Meadows.

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Please provide your positive and negative feedback on the suggested models in the article as well as any additional comments or model suggestions. Feedback can be sent to mather@uleth.ca. 

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