

Addressing pedagogical gaps in a post-COVID educational setting – an experiential and community focused perspective

Provost Taskforce on Pedagogical Innovation – Experiential and Community Engaged Teaching Working Group (July 16, 2021)



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Executive summary

The COVID-19 Pandemic has had an undisputed impact on university education that will likely influence how we teach and see changes in pedagogy implemented for years to come. One of the areas that will require re-thinking due to the distance/at home state of education is experiential learning (EL). Though virtual delivery of education has proved beneficial for some students, it has also reinforced a gap in the inequality of student access to technology and the internet. In addition to digital access, the pedagogy encompassing many social skills, including reading social cues, listening, community collaboration and care are lacking, or limited, in the virtual realm.

In this report, the Experiential and Community-Engaged Teaching and Learning (ECETL) Working Group propose five recommendations that emphasize a Community Focused Learning, pedagogical model designed "to work with students coming from a variety of contexts to acquire a range of introductory academic and community-engaged knowledge, skills and values in a supported learning environment." We argue that EL, which is largely focused on training students for finding paid work after graduating, should be balanced with Social Learning (SL) or Community Engaged Learning (CEL), which provides students with an understanding of their role in society and the skills to help them give back to their communities. While CFL models may not involve entering a workplace, these partnerships and particularly the scaffolded approach recommended in this report simulate workplace processes and behaviours including:

- actively listening to a partner, client, or stakeholder to assess needs;
- communicating priorities;
- reflecting on and adapting to the wider social, cultural or political context in which an organization operates
- critically reflecting on principles, values and mutual benefit of a partnership; and,
- proposing a suitable intervention and submitting work for evaluation by a community representative.

The additional benefits of CEL within curriculum-based pedagogy can accompany and complement traditional views and practices of EL.

The report first details the background of this working group, one of four groups created as part of the Provost's Task Force on Pedagogical Innovation at the University of Guelph. We define our area of interest and approach before digging into the literature on EL, and CEL. The core of the report is the six recommendations, which we supplement with further material from both the wider context and our own thinking. Finally, we have attached a series of example assignments for faculty to consider when beginning to implement a Community Focused Learning approach. We have tried our best to make these assignments open enough to fit across a broad spectrum of disciplinary classrooms as a starting point for anyone interested in engaging in CFL practices with their students.

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List of recommendations

Recommendation #1: Implement Community Focused Learning pedagogy, and activities, as a core part of Experiential Learning Curriculum.

Recommendation #2: Integrate early in the curriculum a "low-touch" scaffolded Community Focused approach and skillset as part of the necessary preparation for experiential learning opportunities.

Recommendation #3: Develop specific community focused modules, such as critical thinking and reflection and active listening, that introduce, deepen, and reinforce learning of essential skills that can be integrated into learning curriculum.

Recommendation #4: Integrate an Equity, Diversity, Inclusion and Decolonization focus into the development and delivery of Experiential and Community Engaged Teaching and Learning.

Recommendation #5: Develop and implement administrative pathways to recognize faculty development of, and student participation in, experiential and community focused learning activities.

Establishing our working group context

The activities and recommendations of the Experiential and Community-Engaged Learning working group of the Provost Task Force on Pedagogical Innovation were guided by five core principles and definitions that outlined each working group's particular focus.

Core Principles

- ✓ Ensuring and Enhancing Accessibility, Equity, Inclusion, Diversity, and Decolonization
- ✓ Promoting a Culture of Care: Health, Wellness, Mutual Respect, and Well-Being
- ✓ Encouraging and Supporting Experimentation and Innovation with Evidence-Based and Promising Practices
- ✓ Promoting Real Change as a Community: Transparency, Stewardship, Engagement, Communication, and Collaboration
- ✓ Ensuring Appropriate Supports, Resources, and Infrastructure Needed for Innovation

Definitions for Experiential Learning and Community Engaged learning

At the University of Guelph, Experiential Learning (EL) is defined as a "pedagogical practice whereby students gain new knowledge, skills and abilities by intentionally applying their classroom learning in a workplace or simulated workplace setting. Experiential learning opportunities are grounded in an intentional learning cycle with clearly defined learning outcomes. They engage students actively in creating knowledge and critically reflecting on their experiences, fostering a deeper understanding of how they can utilize what they have learned and the skills they have developed in future endeavours." Community Engaged Learning (CEL) is a teaching and learning pedagogy that meaningfully integrates community engagement and curricular programming with intentional alignment between course learning outcomes and community identified needs (Morton, Varghese, & Thomson, unpublished manuscript).

Community engaged research, internships, practicums, and service learning are examples of CEL (Taylor et al., 2016).

Our Working Group's Approach

Our Experiential and Community-Engaged Teaching and Learning Working Group was composed of representatives from the student body (Plant Agriculture), the College of Arts (Dept. of History), the Office of Teaching and Learning, the Guelph-Humber campus (Psychology Dept.), the Community Engaged Scholarship Institute, the Lang School of Business & Economics, and the Ridgetown Campus (Ontario Agricultural College) see Appendix A: About the Authors.

Through our meetings we reflected on how the pandemic has impacted our own experiential teaching and learning activities and how it impacted the student experience. We noted that

ECETL "makes the student experience journey come alive". However, the consensus was that although the mode of interaction with external contacts during the pandemic went largely virtual, and that in many cases it was intentionally designed to promote ECETL, this mode of delivery maintained and potentially widened a gap in the inequality of student access. This included a lack of opportunities to reinforce human-related social skills (including the reading of body and verbal cues), a lack of consistency in the teaching of teamwork skills, and a loss of visibility of student progress, student engagement, and student mental health (Marginson 2016; Czerniewicz et al., 2020).

Although we do not represent every faculty and student body on campus, we undertook a careful consideration of literature, policies, and current guiding documents about the impact of the pandemic on ECETL. Then at the recent Teaching and Learning Innovations Conference in May 2021, we hosted break-out sessions and solicited additional feedback on what challenges participants identified with incorporating ECETL. Some of the feedback related around ontological descriptions and the epistemology of ECETL includes: "Ministry definition of EL as having to be in a 'simulated workplace' precludes worthy experiences such as study abroad", "experiential learning is likely defined and used differently depending on the discipline", "recognition and willingness to acknowledge impacts and existence of different epistemologies". Other feedback related to instructor understandings of the place of ECETL in the curriculum, such as: "resistance to discussing social justice aspects of the discipline", "establishing trust and credibility with instructors". Then there were comments on operating in a virtual environment: "challenge of establishing norms and cultural understanding in virtual groups", and "regular check-ins to allow virtual teams to contribute". See Appendix B Participant Responses at Teaching and Learning Innovations Conference.

At this time there are a number of groups on campus working to support Experiential Learning and Community Engaged Learning. Namely, the Experiential Learning Hub (ELH) is the central university resource for supporting Co-curricular and extra-curricular experiential learning. As part of a larger review of experiential learning supports, The Hub will soon start a working group focused on increasing student opportunities for Experiential Learning. The Experiential Learning. The Experiential Learning (research supporting the distinctive skills challenges related to work-integrated learning (research supporting the distinctive skills with this type of experiential activity is described in Konstantinou & Miller, 2021; Leary & Sherlock, 2020; Lee, McGuiggan, & Holland, 2010). Within the College of Social and Applied Human Sciences the Community Engaged Scholarship Institute (CESI) works to build capacity on campus for critical community engaged scholarship. It is important to note the tools and ideas outlined in the present report, may become a fruitful starting place to develop campus-wide strategies and resources.

Establishing the Post Pandemic Gaps

While experiential learning promotes deep learning and improves academic performance (Leal-Rodriguez & Albort-Morant, 2019; Race et al., 2020). The pandemic restrictions emphasized inequalities that existed previously and that were outlined by numerous reports and surveys related to Equity, Diversity, Inclusion, Indigenization and Racialization in higher education and locally at the University of Guelph. Instructional examples of gaps highlighted are not limited to, but also include the following:

- Access to technology can be a challenge for courses that require some type of hybrid access (Fenech et al., 2020; Ochia, 2021; Lashley et al., 2020; Hill et al., 2020) and may be more difficult for Indigenous communities due to connectivity issues (DeGagné, 2021).
- The sense of physical place is also important in experiential learning when applied to the management sciences (Ibrahim et al., 2021) and puts a focus on challenges and skills that promote community engagement and experiential learning (social skills relating to human interaction i.e., 'socio-emotional intelligence' (Devis-Rozental & Farquharson, 2020) reading body language and effective teamwork for example.

In response to the pandemic across campus, faculty, staff, and students found ways to create projects that supported community-identified priorities and goals that were suited to both remote learning and in-person collaborations. Projects focused on knowledge mobilization, public education, and content development for communication platforms, for example, were some that could be adapted most readily and often with high-impact outcomes on all sides. However, it is important to note that the pandemic also impacted many of our partners and collaborators. Although this external effect was not a direct focus of our working group, we acknowledge that numerous community partners and collaborators did not have the capacity or option to provide physical space while solving immediate service delivery problems, to engage in partnerships requiring frequent interaction, or to develop intensive collaboration during the pandemic. This did not mean that collaboration necessarily stopped but it required rethinking the terms of engagement and principles shaping community-university partnerships for EL.

From the Literature: EL and CEL

Examining the Ministry's Criteria of Experiential Learning

Addressing the limits of Experiential Learning criteria

The global focus on experiential learning brings with it numerous guidelines and expectations. In Ontario the <u>Ministry of Colleges and Universities</u> outlines the following criteria for a learning experience to be eligible to count as Experiential Learning:

- ✓ The student is in a workplace or simulated workplace.
- ✓ The student is exposed to authentic demands that improve their job-ready skills, interpersonal skills, and transition to the workforce.
- ✓ The experience is structured with purposeful and meaningful activities.
- ✓ The student applies university or college program knowledge and/or essential employability skills.
- ✓ The experience includes student self-assessment and evaluation of the student's performance and learning outcomes by the employer and/or university/college.
- ✓ The experience counts towards course credit or credential completion **OR** is formally recognized by the college or university as meeting the five criteria above.

However, as experiential learning at university is likely defined and used differently depending on the discipline, the fit of EL into the MCU framework may not always be appropriate or accounted for. This may impact what is counted and valued as EL, including the achievement of pedagogical benefits to students and learning outcomes.

What counts as Experiential Learning and its objectives?

Undoubtedly universities have demonstrated that numerous job-readiness abilities can be developed in disciplinary curriculum such as project management, time management, etc. This calls into scrutiny the Ministry's criteria regarding workplace simulation and warrants expanded thinking. The language of job-readiness that dictates how experiential learning is evaluated according to the province, may reduce the academic mandate around student success to job market definitions. These criteria undermine academic missions widely shared by universities across the country that view themselves as "publicly supported institutions obliged to contribute back to civil society" and subsequent imperatives to "mobilize [university] resources and knowledge for public good" (University of Guelph Provost's White Paper, 2005). A potential challenge occurs when goals such as "intellectual development, equal democratic citizenship and broader social goods are overlooked" (Walker, 2009, p. 233) when defining essential skills. For example, Service Learning models are typically premised on the mutually reinforcing values of "civic education, civic engagement and civic service" for active and intentional learning (University of Guelph Provost's White Paper, 2005). However, experiential learning framed in these terms such as Service Learning models and study abroad opportunities that involve the student's immersion in another culture and country rather than a formal workplace might not be counted though these opportunities that clearly equip students with transferable skills as outlined further by the Conference Board of Canada's employability skills document.

Service Learning refers to "educationally linked, credit-bearing experiences through service to communities" (Bringle & Hatcher, 1996). This is differentiated from co-operative education which focuses on extending student professional skills (Chambers 80). SL/CEL is structured in profoundly different ways from co-operative education and other EL options designed to enhance students' professional development as CEL is based in social learning. Social learning

refers to learning that occurs through observing others' behaviours and attitudes leading to an understanding of the ways behaviours and attitudes are produced through human interactions. In line with other forms of EL, SL correlates with positive academic performance (81). SL also increases the likelihood a student will participate in community service and/or choose a serviceoriented profession (81). Most significantly, SL has been associated with reduced racial stereotyping, increased racial understanding and a more developed commitment to social issues and social responsibility (81). Critical SL/CEL models have further been shown to enable students to develop an awareness of their own positionality in the social system (Chovanec, Kajnen, Mian & Underwood, 2012). SL/CEL fosters a more active citizenship, reconnects students with local communities, and creates reciprocity between schools and communities (Butin 2003 1675). A recent Community Engaged Scholarship Institute study revealed that a sample of students engaged in CETL partnerships on campus gained emotional resilience, collaborative skills, and the ability to navigate uncertainty, as well as an increased appreciation for perseverance and dependability (Varghese, Morton & Thomson, 2017). Data collected from attendees at the previously mentioned TLI conference identified a similar set of essential skills required across disciplines for navigating dynamic community settings, intercultural competency, and cultural literacy, with communication skills including nonverbal and diverse styles being most mentioned.

It is, perhaps, unsurprising that both locally and abroad governments tend to be most concerned with ensuring that education should equip graduates with the knowledge and skills to participate in the economy (Walker, 2009, p. 23). However, W. David Holford warns of the potential problems that arise should economic objectives become the "raison d'être" (2008, p. 25) for universities. As is evident in the list in the previous section, the provincial criteria are dominated by references to job-ready skills, workforce readiness, and employability with no mention of service or public good. Public intellectuals argue that as recipients of public money, universities ought to be contributing in some way to a better society (Walker, 2009, p. 234). Furthermore, with access to university education still to a large degree linked to class privilege, graduates "arguably have obligations beyond their own personal benefit, to others who have not had the advantage of university education" (Walker, 2009). In the wake of these tensions, there is an increasing call to establish community engaged or service learning as "a key vehicle through which institutions can both demonstrate their degree of quality as a public entity and inform society of the ways in which public support is being translated into public goods" (Chambers, 2009, p. 94). Thus, SL/CEL provide crucial and necessary learning outcome differences from EL models focused on employability. Co-operative education and EL models more readily fit into provincial definitions that are increasingly determining the value of experiential learning. It bears considering the ways SL/CEL and the essential skill development therein might be disincentivized if only EL that meet ministry criteria is recognized, provided institutional support, and rewarded.

Recommendations of the Working Group

Recommendation #1: Implement Community Focused Learning pedagogy, and activities, as a core part of Experiential Learning Curriculum.

Community Focused Learning (CFL) focuses on the mission, mandate, and work of a community organization or group via active learning and critical reflection without direct or regular engagement being necessary to maintain the relationship or partnership. The CFL model developed by Dr. Mavis Morton at the University of Guelph stands as an exemplar model that "aligns with current successful pedagogical principles such as transitional and constructivist pedagogies, scaffolded frameworks, integrated course design and/or constructive alignment and authentic assessment" (Morton n.d.). CFL is suitable for a range of class sizes including large undergraduate classes and offers a principled way to introduce early-stage learners to community-university engagement.

The CFL pedagogical model is designed "to work with students coming from a variety of contexts to acquire a range of introductory academic and community-engaged knowledge, skills and values in a supported learning environment" (Cassar et al., 2012). Applications of CFL have been shown to enrich experiential learning by enhancing cognitive skills; increasing retention and understanding of course material; strengthening learning by exposing students to community needs, issues and systems; providing opportunities to contribute to society; building students' awareness, interest and experience of civic engagement, and teaching social responsibility (Moley et al., 2014; Abes et al., 2002; Basinger et al., 2006; Bringle et al., 2010; Butin, 2007; Chambers, 2009; Chupp et al., 2010; Peterson, 2009; Hironimus-Wendt et al., 2009, quoted in Morton, n.d.).

Recommendation #2: Integrate early in the curriculum a "low-touch" scaffolded Community Focused approach and skillset as part of the necessary preparation for experiential learning opportunities.

A recent Community Needs Assessment conducted by CESI and University of Guelph's Office of Student Life polled eighty-four representatives from existing or past community partner organizations. This study revealed an overwhelmingly positive attitude toward EL partnerships with partners seeing value in student perspectives, energy, and knowledge of best practices (CESI & Student Life, 2018). In addition, 85% of partners indicated "some", "significantly more", and even "infinite" capacity for EL partnerships. However, student preparedness was raised as a challenge in achieving the best outcomes. Specific challenges included student motivation, skill, professionalism, and not having a clear understanding of organizational context. While these partners expressed a willingness to engage with students, lack of resources including staff,

time, funds, and space for students needing more than the expected level of training presents a potential barrier to success in ECEL partnerships.

Community Focused Learning pedagogy enables foundational learning in core competencies for high impact engagement and deep learning in a low-stakes setting. A low-stakes setting refers to an environment in which costs are limited, and direct community contact is managed by a trusted liaison. In the CFL model, students have the opportunity to learn the concepts, history, and principles of community engagement as a steppingstone to deeper and potentially more transformative engagement opportunities (Morton, n.d.). One of the gaps in CE competency is that CEL is often implemented without an attention to important details such as a deep understanding of the community context and the skills for ethical engagement (Morton, n.d.). CF models focus on learning about the community before engaging directly, understanding the context in which a group operates, issues of power and positionality in collaborations, and an attention to the work and missions of the community partner – a necessary approach whether a student is engaging with a community organization, industry partner, service user, or other kind of stakeholder. CFL and other low-touch, low-intensity community-engaged models, allow for scaffolding of essential skills that students ought to possess if they engage in highly collaborative research settings but also when they enter their respective fields as professionals and citizens of the world. The intention is not to replace highly engaged partnerships with CFL but to recognize that these opportunities are often provided later in a program when higher maturity levels and more advanced learning outcomes in disciplinary content is demonstrated.

Aside from missing the opportunity to tackle the learning curve earlier in a student's professional, personal, and academic development regarding essential "soft" skills, a higher proficiency in academic knowledge does not necessarily mean that later-learning levels are ready for deeply engaged opportunities and have skills for community engaged research and collaborations. The scaffolding that is a part of the CFL pedagogy ensures that core competencies are developed to reduce the potential for harm on all sides of a partnership and to equip students and faculty with the tools for successful collaborations in high stakes partnerships. The CFL pedagogical model has the further benefit of aligning with transition pedagogy that seeks to scaffold and mediate the first-year experience by providing students the opportunity to develop a sense of engagement with their course of study and university community (Cassar, et al., 2012). A scaffolded approach allows students, faculty, staff, and partners to safely try out and develop new working relationships and to explore shared interests without the pressure of a high-stakes commitment.

Lastly, CFL pedagogical approaches also yield benefits for faculty "as a manageable, lower risk and interesting pedagogy to create deeper links between theory and practice" (Bannerjee, Madhumita, and Hausafus, 2007; Birdsall, 2005; Russell-Stamp, 2015 as quoted in Morton, n.d.. Indeed, CFL provides an accessible entry point for faculty, students, partners, and staff who

may be new to or curious about CEL and EL models. CFL is also a viable model for partners who may have limited capacity for deep engagement but for whom a lower-touch partnership would provide beneficial outcomes with the potential also to enhance the work-simulated aspects of the engagement.

Recommendation #3: Develop specific community focused modules, such as critical thinking and reflection and active listening, that introduce, deepen, and reinforce learning of essential skills that can be integrated into learning curriculum.

One of the myths that must be dispelled is that community engagement and experiential learning are necessarily high-intensity and deeply collaborative processes. Certainly, this might be the ultimate goal for a maximal experience, however, there are a host of skills that must be in place on all sides for this kind of critical, deeply engaged partnership to be possible and successful. CFL provides a mutually beneficial model of engagement for developing learners, emerging CEL educators and for an enriched classroom experience at any stage in a curriculum.

The Conference Board of Canada has a list of fundamental, personal management and teamwork skills, important to develop and master to be better equipped to progress in the workplace. These "Employability skills" can be used as a framework to develop plan of action to better prepare students to the workplace. The essential skills include communication, managing information, using numbers, thinking and solving problems, demonstrating a positive attitude, being responsible, adaptable and able to learn, working safely, working with others and planning, designing and carrying out projects and tasks. Similarly, the University of Guelph has also <u>identified and compiled common employability outcomes</u> by considering a wide cross section of national and international organizations.

Given the inequities exacerbated during the pandemic, the need to introduce and develop skills that focus on social responsibility, civic engagement, knowledge of diverse communication styles, critical personal reflection, inclusive team building, anti-oppressive frameworks, active listening, valuing context, and understanding ethics by graduates of our curricula. Therefore, we recommend an ongoing review process of the evolving essential skills that can be scaffolded as low-touch development opportunities in community focused learning curriculum.

As practitioners of EL and CFL in a variety of disciplines we have provided in the following Appendices some exemplar exercises and recommendations for CFL training modules that would scaffold ECEL skills and build students' engagement capacities:

(All appendices are Attribution 4.0 International (CC BY 4.0) licensed.)

- Appendix C: Critical Self-Reflection developed by R. Burga
- Appendix D: Active Listening developed by B. Luby

- Appendix E: Note-Taking Assignment by B. Luby
- Appendix F: Communication Styles vs. Communication Skills developed by M. Tanti
- Appendix G: Teamwork through an Anti-oppressive Lens developed by M. Tanti
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The Community Engaged Scholarship Institute newly launched <u>CEL database</u> provides additional samples and ideas for high-impact low-touch community engaged learning options: https://www.cesinstitute.ca/cetl/courses

Recommendation #4: Integrate an Equity, Diversity, Inclusion and Decolonization focus into the development and delivery of Experiential and Community Engaged Teaching and Learning.

To help ensure that students from diverse backgrounds can access CFL and CEL activities, educators must work to incorporate experiential learning activities into their curriculum. For generations, universities catered to elite men (Neklason, 2019). Education scholars in Canada are not always explicit about the capital required to pursue post-secondary education. Statistics Canada recently reported that 73% of working youth between the ages of 15 and 24 identified "going to school" as the cause for their employment (Patterson, 2018). Many students used their wages to help finance their education (Marshall, 2010; Ouellette, 2006; Usalcas and Bowlby, 2008). These students may be at a disadvantage if pressured to seek opportunities for experiential learning outside of the classroom.

First, students tend to work in low seniority positions with limited job protection (Marshall, 2010). Research has shown that students are the most likely to be laid off during an economic downturn (Marshall, 2010). Dispensability may increase the perceived risk of asking for time off to pursue extra-curricular activities. More than that, the need to take time off could have real impacts on the financial and material well-being of working students. Individuals with class privilege – which may take the form of family funding – are thus better positioned to benefit from extra-curricular experiential learning activities. Participation, for individuals with class privilege, does not carry the same risk of reduced income or lost employment.

Second, research has shown that long hours correlate positively with poor classroom performance. Within Quebec, "43 per cent of full-time undergraduates say that their jobs have negatively affected their studies and 30 per cent say their jobs mean they'll take longer to finish" (Serebrin, 2012). Extra-curricular experiential learning activities would likely increase the stress load of employed students. They would be expected to study, work, and to seek unpaid skills-building opportunities. Educators, however, can alleviate this additional pressure by building experiential learning activities into the classroom.

COVID-19 may have increased the need to do exactly this. A longitudinal survey conducted in 2020 revealed that the impacts of COVID-19 on course enrollment were not only classed, but raced. "Black respondents were more than twice as likely as white ones to report increased expenses [due to COVID]." Only 3 percent of white respondents from upper-middle-income households planned to reduce their course enrollments due to the pandemic compared to 18% of students from low-income households (Polioff, et al. 2020). The authors go on to suggest remedies to close this gap including "offering more flexible tuition payment" (Polioff, et al. 2020). From an EL standpoint, flexible tuition payments will not create equal student access to extra-curricular activities after the pandemic. Moving into a post-pandemic world, we must ensure that it is not only the students who can afford time volunteering that benefit. We can do this by making sure that EL is covered by tuition and recognized as core course content. By building community-focused or community-engaged learning into the curriculum, educators can ensure that students from diverse economic background can benefit from experiential learning. If equity, diversity, and inclusion is an institutional goal, educators must address the material risk of experiential learning activities for marginalized students by recognizing EL activities as core content.

Recommendation #5: Develop and implement administrative pathways to recognize faculty development of, and student participation in, experiential and community focused learning activities.

As indicated on UofG's website, Senate-approved learning outcomes serve as the basis from which to guide the development of degree programs (broadly) and courses (specifically).

The University of Guelph has 5 Senate approved Learning Outcomes, including:

- 1. Critical and Creative Thinking
- 2. Literacy
- 3. Global Understanding
- 4. Communicating
- 5. Professional and Ethical Behaviour

The Aboriginal Initiatives Strategy (AIS) has called for the creation of a 6th Learning Outcome, "[committing] to inclusion of First Nations, Inuit and Métis cultures, knowledges, and ways of knowing in the graduate and undergraduate curriculum."

Institutionally recognized outcomes are essential to incentivizing EL adoption. Administration must create an environment that encourages faculty to think about CFL and CEL in curriculum design. For example, a 6^{th} – or, if AIS recommendations are adopted, 7^{th} – Learning Outcome might be "Public Service." CFL and CEL categories could align with the "Public Service" mandate while maintaining faculty freedom in the definition of "Public" and "Service" within their

classrooms. In addition to protecting academic freedom, such a move could protect pretenured faculty from the risks associated with testing innovative pedagogical approaches for which there may be limited departmental uptake. Such an addition would also better align UofG's Mission Statement with its public-facing Learning Outcomes. Consider that UofG "aims to serve society and to enhance the quality of life through scholarship" (University of Guelph, 1995). The current learning outcomes focus more heavily on scholarship than service. "Service" reflects learners' responsibility to share acquired knowledge.

CURRENT LEARNING OUTCOMES	POTENTIAL LEARNING OUTCOMES
 Critical and Creative Thinking 	 Critical and Creative Thinking
2. Literacy	2. Literacy
3. Global Understanding	3. Global Understanding
4. Communicating	4. Inclusion of Indigenous Knowledges
5. Professional and Ethical Behaviour	5. Communicating
	6. Professional and Ethical Behaviour
	7. Public Service

Should Administration incentivize the inclusion of CFL and CEL activities into curriculum, pathways must also be created for students to showcase community engagement on their transcripts.

The Experiential Learning Hub is working to develop "a comprehensive list of all University of Guelph courses that offer experiential learning" in partnership with departments, the Office of Quality Assurance, the Office of the Registrar, and the Office of Institutional Research and Planning" (Experiential Learning, n.d.).

The benefits associated with tracking by the Experiential Learning Hub include helping "[s]tudents and their advisors in identifying courses that best connect to personal, academic, and career goals" and enabling "[t]he institution in telling the story of experiential learning to stakeholders" (Experiential Learning, n.d.). Tracking by the EL Hub provides an opportunity for UofG to develop a Community Service concentration across disciplines. For example, if a student attained 1.5 credits in tagged courses over the course of their degree, they could be recognized for completing a B.Sc. or BA with a concentration in Community Service. Such a move would take advantage of pre-existing partnerships between the EL Hub and the Office of the Registrar. It would allow students to reflect their decision to learn through service — whether that is for government, business, a non-profit organization, or a community group — on their transcript.

Appendices

Appendix A: About the Authors

Dr. Brittany Luby, whose paternal ancestors originate from Niisaachewan Anishinaabe Nation, is renowned for her skill at communicating across disciplinary and cultural divides. The Canadian Historical Association has described her research as "innovative in its structure and responsive to Indigenous research methodologies." Luby's expertise in Indigenous methods influences her teaching. She is an award-nominated educator known for engaging undergraduate students in experiential learning projects. Luby's traditional academic work is complemented by years of experience working with First Nations on treaty histories. Her commitment to sharing Indigenous issues with diverse audiences has spurred creative outputs like art installations and children's books. According to the *Toronto Star*, Luby's work for children "models how to build love and respect."

Dr. Dale Lackeyram, (he/him) is the Associate Director in the Office of Teaching and Learning. In this role, he guides a team of Educational Developers that collaborate with faculty, staff, community members and national and international partners to promote evidence-informed pedagogical approaches. His previous experience in curriculum development, student learning, mentoring, facilitative leadership, learning outcomes assessment and inclusive design principles spans two decades at the University of Guelph. In advancing his research in education and student learning outcomes, he draws on both his disciplinary physiology background and his educational development expertise. Ultimately, his contribution to the teaching and learning landscape is guided by the transformative role of education and educational experiences as an act of reconciliation and inclusion. Dale identifies as a gay settler-scholar in the Canadian context.

Dr. David Danto is a clinical psychologist and Head of Psychology at the University of Guelph-Humber. His clinical and research interests include Indigenous wellness and culture-based approaches to addressing intergenerational trauma in local and global contexts. Dr. Danto is involved in allyship and decolonization efforts within the discipline and the academy. He has worked in psychiatric hospitals, counselling centers, private practice, and correctional facilities in Canada and the United States. In partnership with Indigenous Knowledge Keepers, he developed a field course on Indigenous Mental Health, which he has delivered in Mushkegowuk Territory along the James and Hudson Bay coast for the last ten years. He serves on the Board of Directors of the Canadian Psychological Association (CPA) and is Board Liaison to the CPA Committee on Ethics. He recently chaired the CPA Task Force on Responding to the Truth and Reconciliation Commission Report, and he currently Chairs the CPA Standing Committee on Reconciliation.

Dr. Kim Martin, (she/her) is an Assistant Professor in the History Department at the University of Guelph. Martin co-developed, alongside Dr. Susan Brown and Dr. Paul Barrett, the new

Culture and Technology Studies (CTS) major/minor, which has its first official cohort in Fall 2021. She believes the classroom is a place for creativity and experimentation and that students should lead the way to the development of their own projects. In both the History Department and in CTS Martin teaches experiential learning courses and has worked with a number of community partners, including the Norfolk Manor, The Arboretum at Guelph, and most recently, The Ontario Barn Association. You can learn more about her teaching style here.

Dr. Melissa Tanti is the Coordinator of Community Engaged Teaching and Learning at the Community Engaged Scholarship Institute in the College of Social and Applied Human Sciences. She is a scholar and practitioner of community engaged learning with a focus on critical practice informed by feminist, queer, anti-racist, decolonizing and disability frameworks. Melissa builds capacity for community engagement with students, instructors, staff, and communities through consultation, partnership development, curriculum design, workshops, publications and presentations on critical community engaged scholarship. Melissa's teaching philosophy is premised on the belief that pedagogical design should act as a catalyst, not just to visualize a better world but to arouse a desire for one. Her literary work focuses on experimental and avant-garde forms that break down barriers between knowledge systems to generate new understandings of identity, community, and culture.

Dr. Ruben Burga is an Assistant Professor in the Department of Management at the Gordon S. Lang School of Business & Economics. His research activities involve a study of organizational behaviour in the areas of sustainability, corporate social responsibility (CSR), entrepreneurship, accountability, and project management; often seen through the lens of the scholarship of teaching and learning. Ruben teaches management principles (both the fundamental first year course, and the final fourth year capstone course), CSR as part of the B. Comm. curriculum, project management and entrepreneurship at the graduate level, and elective courses in Business Management. Ruben's teaching philosophy revolves around integrating experiential principles and active learning within an inclusive environment that promotes student engagement and principles of active learning.

Dr. Simon Lachance is an Assistant Dean (Academic) at University of Guelph Ridgetown Campus, committed to training the best skilled graduates in the agri-food and environment sectors at the Diploma level. Lachance has a diverse teaching experience, as he has taught courses in the environmental management, agriculture and horticultural diploma programs. He began his career with the University of Guelph at the Campus d'Alfred in 2000 and joined the Ridgetown Campus in 2015. His leadership will ensure the Ridgetown campus is able to take advantage of opportunities, grow its education capacity and develop future creative academic initiatives that are adapted to the shifting future of learning, while creating a student-focused inclusive environment that will favor excellence and success. His research expertise is focused on the development of low-risks pest control methods and products (not at all related to Experiential Learning!).

Appendix B: Participant Responses at the Teaching and Learning Innovations Conference

Topic: Enriching Community Engaged and Experiential Learning with Community Focused Learning Skills and Abilities.

Legend

● are number of likes/agreement with response made to prompt. *italics* are comments related to the response provided.

<u>Prompt #1</u>: What essential skills or abilities would a student need to demonstrate in order to be successful in a EL or CE learning opportunity in your discipline?

Self-care, help-seeking behaviour 2♥

Including relevant resources, they could access!

Project planning and management ♥

Networking, interpersonal skills

Tolerance for ambiguity and dynamic community contexts 3♥

Take initiative ♥

Outreach and communication

Non-verbal communication skills ♥

Enable design and build situations as you would do in real life prototyping

Intercultural communication *

Understanding realistic engineering applications

Communication

Seeking feedback - from peers, supervisor, instructor

Adaptability, intercultural competency skills, communication lacktriangledown

Clear language writing

Goal setting and reflection on those goals

Reflection on the entire experience and how to adjust goals in a responsive way when necessary. — almost related to aspects of adaptability as well

Translating academic knowledge into practical knowledge

Critical thinking

Problem solving♥

Ability to identify (in consultation with the community member) the problem or issue that is to be solved and feasible/appropriate/culturally sensitive solutions 2♥

Teamwork ♥

handing difficult conversations and facilitating teamwork

<u>Prompt #2</u>: What essential skills or abilities would you prioritize delivering in the curriculum to support students in an EL or CE learning opportunity?

Self- and cultural awareness♥

Decolonizing and anti-racist lenses and approaches to CETL/CFL♥

Teamwork ♥

knowledge and skills to work effectively with others

Intersectional understandings of associated community initiatives and issues♥

Understanding of own social location and positionality 2♥

Self-awareness 3♥

in terms of culture but also level of skill or training. Knowing the limits of your abilities Communication skills

verbal and nonverbal

Project planning and management ♥

Cultural literacy 3♥

Universal design and accessibility (for SLG leaders developing study activities)

Identifying, understanding, and applying values associated with CETL/CFL 2♥

Communication and feedback 2♥

Creative and critical thinking *

Diverse communications skill sets 2♥

Problem-solving♥

Collaboration 2♥

Ability to work with others (either teammates or community members) by meeting them where they are instead of insisting that they come to you 3 ♥

Listening skills *

active listening

<u>Prompt #3</u>: How would you incorporate training in prioritized skills and abilities in your disciplinary curriculum?

Inter/cross cultural-awareness training modules

Cross-cultural competency: international virtual exchanges 2♥

Record keeping, safety training in simulated in group-focussed [sic] work environments ♥

Scenarios to discuss / role play, based on students' actual experiences ♥
Pre-departure trainings at CIP ♥

Safe travel essentials workshop, DepartSmart, travellers connection night
Provide a safe environment to increase creativity, and provide reward ♥
Initial training so students feel confident to transition into a role, and ongoing training for skill development and reflection ♥

Allow for failure in experimentation by students and giving them a chance for reflections 6 ♥

Guest lectures and other guided conversations with community in-class 2
Sessions on communications and relationship building with community (tailored to the context in which students are focusing, even if not directly engaging with community partners) 2
▼

Purpose driven exercise

Workshops in knowledge mobilization (foundational concepts and practical skills needed to develop products)

Using technology and drones to enable virtual experience

Introductory modules in EL and CFL to introduce students to the concept and intended outcomes ♥

<u>Prompt #4</u>: What are some of the challenges and opportunities associated with incorporating training into your curriculum?

Do regular check-ins to allow virtual teams to contribute

Challenge of establishing norms and cultural understanding in virtual groups ♥ Establishing trust and credibility with instructors

Experiential learning is likely defined & used differently depending on the discipline Ministry definition of EL as having to be in a 'simulated workplace' precludes worthy experiences such as study abroad (where EL comes from immersion in another culture and country)

Recognition and willingness to acknowledge impacts and existence of different epistemologies (e.g., socio technical thinking) 2^{\P}

Resistance to discussing social justice aspects of the discipline •

Appendix C: Critical Self Reflection developed by R. Burga

Critical self-reflection The pedagogical definition for experiential learning (Kolb, 1984; Kolb & Kolb, 2005) requires a cycle of learning that through a process of experiencing the concrete, reflecting on the experience, conceptualizing the learning, and incorporating into your own self through active experimentation promotes the deep learning of life-long skills. Experiential learning uses concepts of giving or making spaces for students to reflect, to think, to act (Kolb & Kolb, 2005). In most of our efforts as educators we are trying to instill critical thinking through our pedagogical activities and although the link between actual learning and perceptual learning as a result of self-reflections from experiential activities is still being researched in the marketing sciences (Dahl et al., 2018), the process of critical reflection results from intentionally giving the opportunity for learners to achieve goals that they can incorporate into their self and thus through the appropriation of relevance into one's own purpose, transform the reflective exercise into a deep learning opportunity (Fink, 2013; Entwistle, 2003; Chin & Brown, 2000). In EL and CEL, critical reflection is "a necessary feature for [the] assignment to move from volunteer work to critical engagement" (Boland 2011; Moley & Ilustre, 2014, Mooney & Edwards 2011). Thus, critical self-reflection is a necessary activity of ECETL. The appendices provide Critical Thinking tool (from the Association of American Colleges and Universities – AACU), a Critical Thinking rubric (AACU), and an exemplar Critical Self-reflection assignment module (taken from MGMT3020-Corporate Social Responsibility) based on applying Bloom's taxonomy to critical thinking in a student self-reflection paper.

A A Association of American Colleges and Universities

AAC&U VALUE ADD (Assignment Design and Diagnostic) Tool - Critical Thinking

A key finding from research resulting from AAC&U's VALUE (Valid Assessment of Learning in Undergraduate Education) Project is that what faculty ask students to do in class assignments strongly affects how well they do it (Sullivan & McConnell, 2018). With that recognition in mind, this Assignment Design and Diagnostic Tool is intended to help you and your colleagues develop and/or revise an assignment designed to produce student work which develops and accurately demonstrates students' **critical thinking** abilities. When using this tool, the goal is to ensure that the *structure* and *expectations* of your assignment *align* with the outcomes you are trying to achieve.

Backward Design

This larger notion of instructional alignment is central to most instructional design models and is on display in the "backward design" method of planning pedagogical and assessment activities. Backward design (McTighe & Wiggins, 2012) suggests a three-stage process where you first determine the learning outcomes you aspire for your students. You then develop the assessments/assignments you will give your students; the learning artifacts produced by students in response to your assignment will provide you with evidence regarding how well your students have achieved the learning outcomes you defined. With learning outcomes and the associated assessments/assignments clearly defined, you would then move to engage in planning the teaching and learning experiences you will provide to enable your students to complete the assignment successfully and to the best of their ability.

Purpose

The purpose of AAC&U's VALUE ADD Tool series, developed with guidance from an international panel of experts, is to help you intentionally create clear and effective assignments designed to specifically evoke evidence of the learning outcomes you have identified for your students. In short, this tool will help you ensure your assignment aligns with your learning outcomes. That then also should guide your teaching as you help your students learn what they need to in order to complete the assignment. This VALUE ADD Tool is for those who have identified **critical thinking** as a learning outcome for their students, is aligned with AAC&U's Critical Thinking VALUE Rubric, and has three parts. Part one offers a "Cover Sheet" to enable you to reflect upon your students and your goals for them with this assignment. Part two encourages you to reflect upon structural elements of an effective assignment. Part three provides an opportunity to reflect upon the range of critical thinking tasks you may ask your students to perform in addition to how well they are articulated in the assignment itself.

How to Proceed

Your first step as you begin to use this tool is to reflect upon your assignment's instructional context and your students via the tool's "Cover Sheet" (Part One). As some assignments are intended to be broad or narrow in scope, the "Cover Sheet" provides an opportunity to articulate the parameters for the work you envision for your students. For a new assignment, you might use this tool to draft and refine your assignment, possibly using the elements in Part Two and Part Three as a checklist of items to consider as you craft your assignment. For existing assignments, you may choose to use this tool to reflect upon your own or a colleague's assignment, to discern opportunities for revision, or to affirm decisions you have made regarding the assignment. You may also find it helpful to have students provide you with feedback on an assignment by using this tool. When sharing an assignment with a colleague, it will be helpful if you complete and share the "Cover Sheet" in advance. Assignment design is an iterative process, and you may find yourself returning to this tool as you revise. A glossary is provided on the next page to clarify key terms used within the VALUE ADD Critical Thinking Tool.



Glossary

Analysis (see Part Three) – Refers to exploring relationships within information and data.

Describe (see Part Three) – Refers to explaining the issue and calls for the student to provide a clear and comprehensive description of the issue/problem to be critically considered.

Evaluation Criteria – Refers to how you will be grading the student's work, including performance standards and expectations as well as how various elements of an assignment are weighted in the grading process.

Learning Outcomes – Statements that describe the knowledge, skills, and/or abilities students should acquire and be able to demonstrate by the end of a particular assignment, class, course, or program of study.

Position/Argument (see Part Three) – *Refers to the perspective, thesis, or hypothesis presented by the student.*

Use Evidence (see Part Three) – Refers to selecting and using information to investigate a point of view or conclusion or to develop a comprehensive analysis or synthesis.

VALUE – VALUE (Valid Assessment of Learning in Undergraduate Education) is a campus-based assessment approach developed and led by AAC&U.

VALUE Rubrics – Tools developed by AAC&U to assess students' own authentic work, produced across students' diverse learning pathways, fields of study and institutions, to determine whether and how well students are meeting graduation level achievement in learning outcomes that both employers and faculty consider essential.

References

McTighe, J., & Wiggins, G. (2012). Understanding by Design Framework. Alexandria, VA: ASCD.

Sullivan, D., & McConnell, K. D. (2018). It's the assignments – A ubiquitous and inexpensive strategy to significantly improve higher-order learning. *Change: The Magazine of Higher Learning, 50*(5), 16-23.



Part One - Cover Sheet

Who is the audience for this assignment (course, course-level, etc.), and what is the context of the assignment (when is it assigned and why)?
What assumptions are you making regarding your students and their knowledge and skills as they begin this assignment?
What does not need to be explicitly stated in this assignment, given what your students already know via other aspects of the course or the curriculum (syllabus, earlier instruction, previous assignments, etc.)? Explain.
curriculari (synabus, currici instruction, previous assignments, etc.): Explain.
As you reflect upon your assignment, check the critical thinking components below that you expect your students to perform as part of this assignment. These would also be things you would anticipate seeing in the final artifact produced by your students:
☐ Summarize information or an argument, explain an issue, put something in context
□ Distinguish between empirical questions and value judgments
□ Pose a question or identify a topic for research
□ Design a strategy to answer a question or conduct a research study
☐ Gather relevant information/sources/data to use in support of an argument, position, or explanation of an issue
□ Evaluate the quality of information/sources/data and make selections among possible sources
□ Analyze information (or a text, work of art, etc.)
□ Make connections between ideas or information; or apply ideas or knowledge to a new context
□ Apply ideas or knowledge to a new context
□ Draw a conclusion, linked to evidence
☐ Interpret and critique someone else's work, and/or identify their assumptions and biases
☐ Critique one's own work, and/or identify one's own assumptions and biases
□ Construct an argument, or take a position on an issue
□ Explain why something is important, or discuss its implications
□ Other (please describe):



PART TWO – Assignment Design Elements

Well-designed assignments typically clearly specify each of these structural elements.

STRUCTURAL ELEMENTS	Not specified	Partially specified – incomplete or	Clearly specified
This assignment articulates/explains		vague instructions	
The purpose of/rationale for the assignment			
(i.e. what learning outcome(s) is the			
assignment meant to address and what			
products do you expect to be produced?)			
Notes/Feedback:			
The assignment's relationship to intended			
course and/or program learning outcomes			
Notes/Feedback:			
The assignment genre (research paper,			
reflection, lit review, group presentation, etc.)			
Notes/Feedback:			
The required formatting, length, citation style,			
source and grammatical expectations, etc.			
Notes/Feedback:			
The intended audience for which the student is			
writing			
Notes/Feedback:			
The evaluation criteria that will be applied to			
grade the student's work			
Notes/Feedback:			
The roles and expectations for individual group			,
members, including how group members will			
be assessed**			
Notes/Feedback:			



^{**} Applies only to group projects

PART THREE – Critical Thinking Elements

Well-designed critical thinking assignments may or may not include all of these components; some components may not be relevant for every assignment (refer to the checklist in Part One and note the selections in column one below). In addition, a well-designed critical thinking assignment (particularly one designed for advanced students) might deliberately *not* make a component explicit if the intention is to assess whether students can use or apply that component unprompted.

Intended?	CRITICAL THINKING COMPONENTS	Not	Not	Explicit but	Explicit and	AAC&U VALUE Rubric
Yes / No		relevant	Present	vague or unclear	clear	Reference
				instructions	instructions	
	DESCRIBE					
	Summarize information or an					CT Explanation of Issues
	argument, explain an issue, put					
	something in context					
	Distinguish between empirical					CT Influence of Context
	questions and value judgments					and Assumptions
Notes/Feed	back:					
	FORMULATE QUESTIONS					
	Pose a question or identify a topic for					IA Topic Selection
	research					
	Design a strategy to answer a question					IA Design Process
	or conduct a research study					
Notes/Feed	back:					
			T			
	USE EVIDENCE					
	Gather and employ relevant					CT Evidence
	information/sources/data					
	Evaluate the quality of information /					CT Evidence & IA
	sources / data and make selections					Limitations and
	among possible sources					Implications
Notes/Feed	back:					



llyze information (or a text, work of etc.)	IA Analysis
	1
ke connections between ideas or or or apply ideas or wledge to a new context	Integrative Learning Transfer; CT Evidence; CT Influence of context
w a conclusion, linked to evidence	CT Conclusions
rk, and/or identify their	CT Evidence & IA Limitations and Implications
ntify one's own assumptions and	IA Limitations and Implications; CT Influence of Assumptions
struct an argument, or take a	CT Student's Position
, , , , , , , , , , , , , , , , , , , ,	IA Limitations and Implications; CT Influence of Context; CT Conclusion
	primation; or apply ideas or bywledge to a new context Iw a conclusion, linked to evidence : TIQUE Perpret and critique someone else's rk, and/or identify their umptions and biases rique one's own work, and/or intify one's own assumptions and ses : SITION/ARGUE Instruct an argument, or take a ition on an issue Ilain why something is important, discuss its implications :

LEGEND

- CT: Critical Thinking VALUE rubric
- IA: Inquiry and Analysis VALUE rubric



CRITICAL THINKING VALUE RUBRIC

for more information, please contact value@aacu.org



The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success.

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Framing Language

This rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires habits of inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those habits in various and changing situations encountered in all walks of life.

This rubric is designed for use with many different types of assignments and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in assignments that require students to complete analyses of text, data, or issues. Assignments that cut across presentation mode might be especially useful in some fields. If insight into the process components of critical thinking (e.g., how information sources were evaluated regardless of whether they were included in the product) is important, assignments focused on student reflection might be especially illuminating.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- · Ambiguity: Information that may be interpreted in more than one way.
- Assumptions: Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof."
 (quoted from www.dictionary.reference.com/browse/assumptions)
- Context: The historical, ethical. political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.
- Literal meaning: Interpretation of information exactly as stated. For example, "she was green with envy" would be interpreted to mean that her skin was green.
- Metaphor: Information that is (intended to be) interpreted in a non-literal way. For example, "she was green with envy" is intended to convey an intensity of emotion, not a skin color.



CRITICAL THINKING VALUE RUBRIC

for more information, please contact value@aacu.org



Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Miles	Benchmark	
	4	3	2	1
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/ problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/ problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/ or backgrounds unknown.	Issue/ problem to be considered critically is stated without clarification or description.
Evidence Selecting and using information to investigate a point of view or conclusion	Information is taken from source(s) with enough interpretation/ evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/ evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/ evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/ evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothes is)	Specific position (perspective, thesis/ hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of vieware synthesized within position (perspective, thesis/ hypothesis).	Specific position (perspective, thesis/ hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/ hypothesis).	Specific position (perspective, thesis/ hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/ hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.





Case Learning Reflection

Weight: 10% Submission: via Dropbox Due: Week11

Note: Refer to the Outline for the exact due date

Overview

The Case Learning Reflection should describe your individual contribution to the case group assessment. You will be describing your reflections based on different levels of Bloom's taxonomy: remembering, understanding, analyzing, evaluating, and creating. The Case Learning Reflection will assess achievement of learning outcomes 1, 2, 4 and 9.

Purpose

The Case Learning Reflection is your opportunity to provide a first-person narrative of your learning experience as you worked to the successful completion of the Case group assessment. The case learning reflection should describe your contribution to the project and group and include a discussion of what you learnt and how you will apply this learning to your present or future career as per the rubric.

Instructions

Write a 500 - 1000 words reflection that reports on your participation in the Case Group Assessment. Submissions that are less than 500 words or more than 1000 words will not be graded.

Your reflections are important and you will earn marks according to how well your submissions align with the rubric guidelines below.

Use APA formatting, in-text citations and referencing if needed. Double-spacing is required. You MUST submit your document as a Word document.

Grading Expectations



Rubric Guidelines

 $Your learning \, reflection \, will \, be \, marked \, out \, of \, 18 \, points. \, Results \, of your \, submission \, will \, be \, available \, within \, 5-10 \, days \, of the \, due \, date.$

See the rubric below to see how we will mark your submission (penalties will apply after the rubric has been completed based on the quality format described above):

Case Learning Individual Reflection Rubric

Topic	How well the student answers:	Maximum possible marks
Remembering	What did I accomplish? (what was your specific contribution in the context of the case)	3
Understanding	What new insights did I develop as a result of doing this work? (the insights can be related to group work but it must also include the context of CSR learning within the case)	3
Analyzing	What challenges to my current thinking did this work present? (in the context of CSR)	3
Evaluating	WhatdidIdowell? Whatareas do Istill need to work on? What would I do differently if I did it again?	3
Creating	What next steps do I want to take as a result of this learning experience? (in the context of CSR and your career)	3
Quality	Youneedtoprovideatitlepage, an introduction, your body, and a conclusion. You should provide subheadings to help with your organization; you need to use Times New Roman 12 font and double space. Use APAcitations if needed and then are ference section if you used any in-text citations. Ensure that you have less than 5-10 spelling/grammatical errors.	3
TOTAL POSSIBLE SCORE		18



Appendix D: Active Listening developed by B. Luby

Active listening is a key component of relationship building. It requires listeners to focus on the speaker, attend to the speaker's body language, listen for underlying messages (e.g., emotion), ask clarifying questions as required, and paraphrase to confirm understanding (Toiter, 2020). Active listening refers to the act of "purposefully focusing on what a speaker is saying with the objective of understanding" (Shier, n.d.).

Indeed, active listeners can glean more accurate information through their conversations. They are also able to deepen their connections with others. A speaker who feels heard feels respected. By contrast, a failure to listen effectively can make the speaker feel "unimportant, not heard, [and] not respected" (Clark, 2018). When individuals fail to listen, they risk alienating the speaker (Clark, 2018). Educators looking to build and sustain community-focused or community-engaged learning activities outside of the classroom have a responsibility to teach active listening skills as a form of harm reduction.

Students can be encouraged to adopt a listening mindset through community-focused learning and critical reflection activities. According to communication coach Dorie Clark, a listening mindset is "[a] state of mind where you strive to understand your motivation to listen, show the other person you care, stay focused on the real problem or issue, and keep your curiously active throughout the conversation" (Clark, 2018). A low touch activity that can be used to develop active listening skills within the classroom is a note-taking assignment (see Appendix E). In this assignment, students assume responsibility for capturing and posting key content from the lecture for their classmates. Students are motivated to listen to ensure their classroom community has accurate and reliable study notes.

Note: Students who are registered with accessibility services may require additional time and/or permission to record the lecture to ensure the successful completion of the note-taking activity. It is important to remind all notetakers to complete background readings before class as "making associations to past remembered information can help a listener understand what [they are] currently hearing" (Syrett, n.d.) Background readings can thus help to reduce performance anxiety while improving students' ability to prioritize information.

Reflection activities can also be introduced to students to encourage the development of active listening skills. For example, after a meeting, seminar, or guest speaker, educators can prompt students to complete the following checklist (adapted from Toister, 2020):

ACTIVE	LISTENING CHECKLIST	NOTES
	Eliminated distractions to improve focus	
	Concentrated on the speaker	
	Attended to the speaker's body language	
	and/or emotional cues	
	Asked clarifying questions as needed	
	Paraphrased to confirm understanding	



By reflecting on their listening behaviours, students begin to understand what influences their ability to "tune in" and can position themselves to build stronger, healthier relationships inside and outside of the classroom.

Note: Body language can have cultural inflections. To listen effectively, students may also be required to develop intercultural competencies. According to the <u>EdCan Network</u>, "[d]eveloping intercultural competence involves systemically observing and critically reflecting on our own . . . behaviours." Students operating in a diverse environment are encouraged to:

- 1. Question their attitudes by asking questions like "Am I curious, open and eager to learn [?] How do I react when I don't understand what [someone is] doing or saying?"
- 2. Develop cultural self-awareness by asking "Am I aware of my own cultural behaviour and why I think and act the way I do? Am I aware of how [others] wish to be treated? Which rules, customs, and values influence my own [and others'] thinking, actions, and communication?"
- 3. Observe and respond to situations by asking "Do I respond in a culturally appropriate manner?"



Appendix E: Note Taking Assignment by B. Luby

Pedagogical Purpose: An assignment that builds community within the classroom while helping students to develop their active listening skills.

Student Value: The notetaking assignments helps students to manage the stress of the unknown (e.g., illness, emergency) that may negatively affect classroom attendance by creating a record of key teachings communicated during synchronous sessions. It also encourages students to reflect on and curate their notes. This process, a form of spaced repetition, is associated with improved recall (Ausubel & Youssef, 1965; Zikle & Ellis, 2010; Kang, 2016).

Sample Assignment Description: Over the course of the semester, you will be required to take notes once during a lecture with [Instructor or community partner]. Your submission is to be 2 to 3 pages long and can include bullet-point sentences. Your submission must adhere to the <u>principles of universal</u> <u>design for Word documents</u>. [Indicate style] citations are also required.

Remember, as the notetaker, you have an opportunity to curate course content. For example, you may choose to present information thematically rather than chronologically. Your goal is to preserve key teachings (rather than all teachings) for the classroom community.

An edited version of your notes will be uploaded under "Content" on CourseLink to ensure that all members of the classroom community have access to study materials that have been reviewed and approved by the course instructor.

We will use this student-generated record to make sure that we are working collaboratively and supporting one another throughout the learning journey.

This activity gauges your active listening skills, your ability to assess and prioritize information, and builds community.

Your notes will be due on Friday at 4:30 p.m. on your assigned week. If you have any questions or concerns, please contact your instructor at [preferred contact].

Note for instructors:

This activity helps to ensure that vetted notes are available for all members of the classroom community. Adaptations may be required for students who use notetaking services. Adaptations that have worked in the past include:

- permission to record the lecture combined with an extended deadline; or,
- modified assignment that focuses on the assigned reading and emphasizes how the lecture intersects with the assigned text.



Sample rubric:

	A-Range	B-Range	C-Range	Needs Improvement
Content	Successfully identifies, prioritizes, and communicates essential teachings.	Successfully identifies and summarizes main issues. Struggles to prioritize key points.	Identifies key information but provides insufficient explanation.	Does not identify key information.
Organization	Clear sense of unity and order. Logical transitions.	Adequate sense of unity and order.	Lapses in unity and order, but the take-away message is identifiable.	Take-away message is not identifiable on first reading.
Clarity	Clear and nuanced speech.	Occasional wordiness, generally appropriate word choice.	Wordiness and/or inappropriate word choice. Clarification required to effectively transmit message.	Meaning requires clarification.
Citations	Citations are above reproach in their placement and organization.	Citations require small tweaks. Please review the guidelines posted on CourseLink.	Citations require focused revision. Please review the guidelines posted on CourseLink.	Citations are incomplete. Please visit during office hours or arrange an appointment if you require support interpreting the instructions posted on CourseLink.
Accessibility	Careful adherence to the principles of universal design for text documents.	Document requires small formatting amendments. Please review the guidelines posted on CourseLink.	Document requires focused revision to meet accessibility guidelines. Please review the guidelines posted on CourseLink.	Document does not yet pass an accessibility check. Please visit during office hours or arrange an appointment if you require support interpreting the instructions posted on CourseLink.



Appendix F: Communication Styles vs. Communication Skills developed by M. Tanti

The Scholarship of Teaching and Learning (SOTL) shows that participating in class increases student learning (Rocca, 2010). This extends to community engaged contexts as well. However, being able to participate requires more than willingness. Students must have sufficient experience developing their perspectives, feel sufficiently respected by their peers and instructor, and otherwise be prepared with relevant material (Howard et al., 1996; McDuff 2012; White, 2011). Small interactions (i.e., small talk) are largely shaped by cultural capital, which varies by social class background and other characteristics (Khan, 2011; White, 2011). Furthermore, socialization and structural oppression provide differential access to the skills needed to engage (Gillis, 2018, 12). This is particularly so when considering the unquestioned eurocentrism and sexism often shaping dominant forms of communication -- the communication styles that tend to be most recognized and rewarded. Tania Mitchell et al. observe that within institutions that are aligned with whiteness, merit is largely based upon one's ability to understand and navigate intricate cultural systems rather than on a student's intrinsic ability or aptitude (Mitchell et al., 2012, 615). Furthermore, there is a growing literature examining the ways that the most idealized communication styles align with White supremacy culture (Alderwick and Tanti 2019; see Appendix G: Characteristics of White Supremacy Culture and Antidotes). Critical examination is needed to interrupt systems of oppression embedded in the ways students are taught or encouraged to communicate. While participation skills can be learned, there is also a need to recognize differing communication styles as part of a communication skillset. Narratives that support the idea that shyness and other personal features are inherent and unchangeable and more so those that pose these traits as reasons to bypass students who are not outspoken, disempower students and offload a responsibility for all students to develop their communication styles (Gillis, 2018). Mary Reda notes that we also need to be open to the possibility that the decision to be silent can be a legitimate, reasoned one (Reda, 2009). These oversights miss the opportunity for students to develop an understanding of diverse forms and styles of communication within their peers and community partnerships.

Notable communication differences exist between westernized cultures and those with oral traditions such as Indigenous and African cultures whose epistemologies and ways of making sense of the world are "connected to the land and its people's spiritual practices" (Boveda, 2019, 107). Mildred Boveda argues that these epistemologies tend to be "explicitly devalued or erased in the westernized university" (2019, 107). She explains a further disconnection between the "straightforward, sincere and upfront conversational style that is highly valued in the transnational and urban communities [she] comes from" (Boveda, 2019, 110) that was often perceived to be confrontational or aggressive and the "indirect communication style that would be considered scheming and inauthentic in [her] neighbourhood" (Boveda, 2019, 111) but was taken to be polite and civil in academic circles. Similarly, people of colour and especially women are often scrutinized more intensely in terms of normative "bodily



performances," which are institutional or departmental expectations for how an individual should behave or act in the given workplace (Ford, 2011). Thus, body language constitutes another important area for developing a communication skillset, which should be as much focused on listening and interpreting as on speaking or expressing oneself. [1] Anne Mamary posits that, in its most ideal sense "communication involves not only the transmission of information but also the creation of community" (2003, 454). To the contrary, academic conversation and writing along with other conventional modes of expression tend to be "gendered, cultured, classed, and barrier-ridden" (Mamary, 2003, 455). An anti-oppression framing for communication skills would value "kinesthetic learning and expression in addition to oral performance and written expression" (Mamary, 2003, 457). It would enable a space where many different language uses are welcome, silence is understood and valued, and assumptions about the purpose of speaking are explored (Mamary, 2003, 457). Such training would be an innovative and essential contribution to community engaged curriculum. The following, "Think. Pair. Share" exercise begins to build capacity for developing self-reflexivity around one's own communication style and habits, while learning to make space for and attuning oneself to the habits and styles of others.

Adapted from <u>Cathy Davidson</u> and <u>Christina Katopodis</u>

Think-Pair-Share: *Hearing one's own voice and witnessing being heard can have a powerful effect*—it structures equality.

- 1. Hand out index cards and pencils (optional)
- 2. Set a timer for 90 seconds
- 3. Pose a question i.e. What does a land acknowledgement mean to you?
- 4. **Think**. Ask everyone to take 90 seconds to jot down three things they think about land acknowledgements. (question can be course related or general: three responses to something important)
- 5. **Pair.** When the timer sounds, students work in pairs for another 90 seconds in a very specific, ritualized way:
- a) Their objective in this 90 seconds is to, together, come up with one thing to share with the whole group. It can be a synthesis of various comments on both cards, but one agreed upon thing to share.
- b) BUT before that each person has to *hear* the other. First, one person reads out loud while the other listens without interrupting. Then the second person reads three things while the first listens without interrupting. It is important that while one member of the pair reads their three things, the other is silent; then they switch and the second person reads to a silent listener. This may be the only time a person ever hears their own voice it is a crucial step. After they hear one another, have them think about the six things on their cards, see where



there is overlap, where there is difference, discuss and, together, decide on what is the single most important thing to share with the whole group. It may well be a mix of things on each card. This is not just modeling a classroom practice but a social ideal. There is also something about the ritual of writing down, then reading to someone else, that allows the introvert to speak up in a way that avoids the panic of being called on and having to speak impromptu before a group.

c) **Share.** The final 90 seconds involves going rapidly around the room and having one person in each pair read their contribution. You might have a Google Doc ready and "share" is everyone writing their one thing on the Doc. This can be made into a public contribution as an open Google Doc or posted to the website.

In this activity, everyone gets time for speaking and being heard as well as time to practice good listening skills. This activity demands 100% participation from everyone in the room and it also bolsters trust and a sense of community. Listening Dyads increase one's sense of how much time one takes up while speaking, they require you to *value* the time others give you, and they give everyone a chance to practice the fundamental skills needed for a healthy dialogue.

Recommended activity for participation marks rather than a graded exercise.

Middleton et al define communication as the capacity to hear verbal messages (cognitive and affective content), correctly perceive nonverbal messages (affective and behavioural content), and respond verbally and nonverbally to both kinds with the goal being to respond versus react – a skill that requires continual practice (2000, 233).



Appendix G: Characteristics of White Supremacy Culture Resource by S. Alderwick and M.Tanti

Characteristics of White Supremacy Culture¹

What follows is a set of Eurocentric cultural norms for interactions and processes within organizations. The characteristics and related communication styles are described for each norm. The characteristics listed below may become oppressive behaviours when they are used as standards without being proactively named or chosen by the group.

Norm	Characteristics	Communication Style
Defensiveness	 Because of 'either/or' thinking, criticism of those with power is viewed as threatening and inappropriate (or rude) People respond to new or challenging ideas with defensiveness, making it difficult to raise these ideas The defensiveness of people in power creates an oppressive culture 	Value for respect of hierarchical structures Overly-sensitive or Inflexible
Objectivity	 A belief that objectivity is preferable to showing emotions which are inherently destructive, irrational and damaging to decision-making or group process Requiring people to think in a linear fashion and ignoring or invalidating those who think in other ways Impatience with any thinking that does not appear logical to those with power Closely related to Worship of the Written Word demonstrated 	Value for rationality and neutrality
	through a bias toward written documentation without considering other ways to share information	Dismissive or Aloof
Perfectionism	 Little appreciation expressed among people for the work that others are doing Appreciation that is expressed is usually directed to those who get most of the credit anyway 	Value for facts, tasks and logic over feelings
	 Pointing out either how the person or work is inadequate, or talking to others about the inadequacies of a person or their work 	Bulldozing
Power- or Knowledge- Hoarding	 Little value for sharing power, resources and information Those with power feel threatened by suggested changes Those with power assume they have the best interests of the organization at heart and assume those wanting change are 	Value for control Cautious or Mistrustful
Sense of Urgency	 ignorant, emotional or inexperienced Continuous sense of urgency that makes it difficult to be inclusive, democratic or thoughtful about decision-making Sacrificing potential allies for quick or highly visible results (eg., sacrificing interests of racialized people to win victories for white people) 	Value for results and quick decision-making
	Reinforced by funding proposals which promise too much work for too little money and by funders who expect too much for too little	Driver

¹ Jones, K., & Okum, T. Showing Up for Racial Justice. (n.d.) From <u>Dismantling Racism: A Workbook for Social Change Groups</u>. *White supremacy culture characteristics*. Retrieved from www.showingupforracialjustice.org/white-supremacy-culture-characteristics.html.



Antidotes to White Supremacy Culture

Defensiveness: Understand the link between defensiveness and fear (of losing power, losing face,

losing comfort, losing privilege). Work on your own defensiveness. Discuss the ways in which defensiveness or resistance to new ideas gets in the way of the mission. When confronted with defensiveness, seek to explore the underlying interests (the reasons

why X is important).

Either/Or Thinking:

Notice when people use either/or language and encourage the identification of more than two alternatives. Notice when people are simplifying complex issues, particularly when the stakes seem high or an urgent decision needs to be made. Slow things down by taking a break and give people some breathing room to think creatively and

encourage a deeper analysis.

Fear of Open Conflict:

Roleplay ways to handle conflict before it happens. Set group guidelines in advance of, or during, moments that may become contentious. Avoid using the ways in which issues are raised as an excuse to not address concerns or differences. Once a conflict is resolved, take the opportunity to revisit it and see how it might have been handled differently.

Objectivity: Realize that everybody has a world view and that everybody's world view affects the

way they understand things. Sit with discomfort when people are expressing themselves in ways which are not familiar to you. Assume that everybody has a valid

point and your job is to understand what that point is.

Perfectionism: Develop a culture of appreciation, where the organization takes time to make sure that

people's work and efforts are appreciated. Develop a learning organization, where it is expected that everyone will make mistakes which offer opportunities for learning and may sometimes lead to positive results. When offering feedback, always speak to the things that went well before offering criticism and separate the person from the

mistake.

Powerhoarding: Include commitments about power-sharing, accessing resources and building capacity in others in value statements, operating principles, collaboration agreements and / or group guidelines. Ensure people understand that a good leader develops others and understands

that constructive criticism can be healthy and productive.

Sense of Urgency: Learn from past experience how long things take and implement realistic workplans that leave space for discussion and unanticipated delays. Discuss and plan for what it means to set goals of inclusion and diversity, and be clear about decision-making processes, especially in an atmosphere of urgency.

Worship of the Written Word:

Accept and notice when people do things differently and how those different ways might improve your approach. Look for the tendency of a group or a person to keep pushing the same point over and over out of a belief that there is only one right way and then name it. When working with communities that differ culturally from your organization, be clear that you have some learning to do about the communities' ways of doing things. Never assume that you or your organization know what's best for the community in isolation from meaningful relationships with that community.



Appendix H: Teamwork through an Anti-Oppressive Lens developed by M. Tanti

In general, peer discussion from small group work or short in-class activities increases student learning (Johnson and Lawson, 1998; Springer et al, 1999; Crouch and Mazur, 2001; Smith et al, 2009). However, small group work can privilege certain voices and at its worst can do harm to minoritized students (SCTL 2021). Eddy et al. further provide evidence of systemic bias in who benefits from group work (Eddy et al., 2015, 2). To realize the full benefits of group work, students must experience a variety of team roles. Those who participate in group dynamics by only listening or taking notes will store but not integrate information (2015, 2). Those who engage in explaining and talking during group work will form a deeper understanding as they integrate new ideas through constructivist and interactive engagement – building their own mental mode of processing information and building upon the ideas of others (2015, 2). Eddy et al. found that the benefits of group work are unequally experienced due to barriers to equal participation depending on a student's ethnicity, racialization, nationality (international students vs. nationals), and gender. Some of the limits to participation include the presence of a dominating student, moving too quickly through material for all to contribute, when a student's contributions are demeaned or ignored, a student's sense of anxiety or intimidation, and a low perception regarding the value of participating (2015, 3). It is worth noting, for example, that international students were five times more likely than their white counterparts to report a "dominator" in their group (2015, 9). This is consistent with the experience of racialized students. Depending on specific group identities, thirty to fifty percent of racialized students noted the existence of a dominator compared to twenty percent of white students (2015, 9). In addition, students who identified as men were more likely to prefer to take lead roles (2015, 13). These statistics suggest that domination is being largely experienced in group work though not noticed by all members. Levels of anxiety, comfort being oneself, concerns over social comparison and a sense of the value in participating were also differentially experienced depending on group identity. However, the perceived value of the groupwork experience increased as the group's functionality increased (2015, 12). These findings are important for improving students' classroom learning experiences and have significant implications for how students might engage with community partners and other collaborators in ECEL projects. Students must have the skills and abilities to both partake in and facilitate a variety of team roles so that they are best prepared to participate in diverse 'real-world' teams.

Eddy et al's study showed that unstructured group dynamics could generate inequity in roles (2015, 14). On the other hand, one can "structure equality" in classroom pedagogy (Davidson, 2015). Some strategies for equitable development of groupwork skills include requiring groups to rotate who talks first in each meeting or who assumes which roles in group activities, having students work in teams of two where equal participation can be more easily structured through "Think.Pair.Share" exercises (see Appendix F), using group discussion prompts to facilitate



group sharing, asking students to reflect on group dynamics in a written reflection midway through a longer assignment, or assigning roles to each group member so that students can gain awareness regarding how they typically participate in groups (Wicket, 2000, Menekse et al 2013, Johnson et al, 1998, Cohen et al, 1999, Kotsopoulos, 2010). Practitioners of Cooperative Learning models note that "putting students into groups to learn is not the same thing as structuring cooperation among students" (Johnson et al, 1991, 18). In Cooperative Learning frameworks, students experience learning as a collaborative process (Tanner et al, 2003, 1). Cooperative learning values social interdependence and promotes cooperation rather than encouraging competition and individual achievement; other students become resources and partners in learning (Tanner et al, 2003, 1-2). For cooperative learning to occur the groupwork must be structured to promote positive interdependence, dedicated in-class face-to-face interaction, individual and group accountability, interpersonal and small group social skills such as active listening and asking clarifying questions, and group processing through which to discuss how the group work is going (Tanner et al, 2003, 2-4). These qualities allow for skill development and social learning to occur and prepare students for complex social dynamics of workplaces and 'real-world' collaborations.

Microagressions are one way that the contributions of various group members can be unintentionally excluded or devalued in groupwork and team settings (STLC). Thus, learning about manifestations of implicit bias is an important part of creating inclusive environments and team settings. The goal of teaching teamwork skills through an anti-oppression framework is to foster openness to ongoing personal development as it relates to issues of equity and inclusion, so all students get the most out of their learning experiences and are equipped for the realities of diverse workplace and community settings. There are a variety of ways to build relationships between groupmates with purposeful time and activities that encourage students to build connections, teach students to share "air-time," foster inquisitive dialogue through the use of "inquisitive language" rather than language that debates or attacks, and permit "the historically invisible to be made visible" (SCTL). To build these skills into groupwork exercises would be to teach teamwork through an anti-oppression lens. While at present no such tool exists for teaching team work intentionally through an anti-oppression framework, Cooperative Learning frameworks closely align with anti-oppression strategies (See "The Classroom Conference" below for sample Cooperative Learning exercises).

^[1] A microagression is an everyday exchange that cues a sense of subordination based on any one of a number of social identities, including: race, gender, sexual orientation, socioeconomic background, nationality, religion, and disability (SCTL)

The Classroom Conference

This is a kind of jigsaw exercise. It is great to use with particularly long or dense articles or a chapter on the course reading list. It allows students to see the reading from a variety of perspectives and to learn from one another about aspects of the texts they may not have



noticed or considered important. They will also experiment with a variety of team roles that they may not normally choose for themselves and get to see how others behave in these roles.

- 1. Assign sections of a course reading to groups of 3-5 students. The group must become the class experts on that section of the reading. This could be a few paragraphs, a few pages or a subsection of a reading.
- 2. Instruct students to each do a close reading of the section individually, highlighting interesting sentences, words and passages, looking up definitions for new words and encyclopedia summaries for new concepts that might be referenced, identifying contrasting ideas and any patterns or repetitions in the section. They then come together to decide on the most important of these to share as their "conference presentation" to the class. In an imaginary or "classroom" conference you will hold, they are taking up the role of expert panelist on this section of the reading.
- 3. On the day of the conference, the class will be structured like the roundtable learning sessions held at many academic conferences. 1-2 students will be designated as expert speakers to stay at their roundtable and present their section to panel attendees/classmates, 1-2 students will move around the room, attending the other speaker tables and taking notes on the other sections of the course reading to share back with their group.
- 4. At the tables, the presenter/panelist students present their findings (summary of key terms, ideas, learning from the reading) in 5-6 minutes. Then attendees/classmates have the opportunity to ask clarifying questions to ensure they have comprehensive notes to take back to their group on that section. The notes taken from their classmate/experts will be the only notes students have on this reading. Thus, the assignment builds in a productive interdependence that is the basis for co-operative learning.
- 5. Notetaker students move around the room, taking notes on the various sections while speaker/expert students present their material to "sessions" of new classmate/attendees (likely 3-4 times). The roundtables are timed and given about 20 minutes each before rotating. For the speaker/experts, having to articulate the same material in different ways for different audiences and respond to different clarifying questions encourages integration of materials. Notetakers will also get presenting experience and the opportunity to answer clarifying questions when they present back their notes to their home group. The group members will form their reading/study notes based on this information from the "sessions" they did not attend.

This exercise usually requires one dedicated class for the classroom conference. The instructor does not lecture but will circulate around the room, listening in on sessions and clarifying or prompting where needed. The group notes can be a source of participation marks. It is quite



amazing to see how students rise to this challenge and enjoy being put in the position of expert: this goes for panelists and notetakers alike.

Jigsaw Groups² are an informal cooperative learning group structure that can be used in both labs and discussions of papers or readings. The goal of the jigsaw discussion is for students to share their expertise and to gather information from peers who have completed a different task. For example, in a science class rather than having all students read all articles on multiple organisms going through a particular developmental stage, each student would be assigned readings highlighting findings in one organism i.e., fruit fly, nematode worm, zebrafish, or mouse. After completing the readings, students would be assigned to jigsaw groups that would bring together four students, each of whom had completed readings on one organism, with the requirement that each student report to the others in an effort to identify common features. A similar approach can be taken in laboratory courses in which different groups of students have pursued different investigations on a related topic. Students can hone their expertise on a single methodology or topic, then jigsaw with two or three students who have developed expertise in other techniques, thus promoting mutual teaching and learning among students.

² Adapted from Tanner et al, "Cooperative Learning in the Science Classroom"



Appendix I: Building Community Connections through Wikipedia by K. Martin

Overview:

Students are asked to research an individual or organization in their community that does NOT have a Wikipedia presence (or has a very limited page—What Wikipedia calls a 'stub') and to create this page based on Wikipedia's guidelines for contributors.

Pedagogical Purpose:

This assignment helps students understand the role of community organizations or individuals that work in them through research, while actively contributing to an online information resource.

Student Value:

Wikipedia assignments teach students the following:

- How to conduct research
- How to properly cite and hyperlink materials
- How to write for the web
- How to write with, and for, a public community
- How to conduct and respond to peer review
- Where to look for information regarding their local community
- How to recognize what's missing from the web and to consider why this might be the case.

Wikipedia, like much of the web, is notoriously written by white, upper class males, and as such reflects their interests and knowledge (Reagle and Rhue 2011, Wagner et al., 2015). This acts as a vicious cycle of instilling more cultural power and prestige to those that already have it. Many groups (Art+Feminism, Whose.com/Knowledge?) actively work to center internet knowledge elsewhere and raising awareness of this amongst students will help them to think critically about what they read and write on the web.

Sample Assignment Description:

Students should be introduced to the critical debates surrounding Wikipedia early on – it makes for great classroom discussion!

Each student should locate one person or organization from an under-represented group within their community that meets the Wikipedia guidelines for notability. They should research this person or organization and, following the guidelines (widely available online) for contributing to Wikipedia, create a page about this person or organization to share their work with the larger internet community. They should submit a 2-3 page reflection on the process, highlighting decisions they made while creating their page.

Students should be graded on:

- Topic selection: Did they locate a person or organization who should be recognized but was not?
- Quality of research: Were their primary and secondary sources used? Did they come from peer-reviewed sources (where appropriate)?
- Quality of writing: Wikipedia articles are supposed to be written with no point of view. This is a very different skill than what students are usually asked for and requires some thinking.
- Polish of page: These are live pages on the web and will need some review before 'going live' or they will be questioned by Wikipedia community members.



Reflection: Are students able to think critically about their decisions around inclusion? About
writing for the web? How does contributing information about their local community to a
worldwide web resource compare to other assignments they've completed?

Note for instructors:

If there's time and space in your syllabus, consider adding a level of peer review to this assignment, by partnering students up and having them review/edit each other's work and reflect on this process.

It is not possible to build Wikipedia pages for every community, organization, or person that is considered 'notable' by their standards. Some communities do not have existing records for their achievements and others do not pass down generational information in a written form, meaning they are outside of the bounds of being captured by Wikipedia's standards as they currently exist. Consider using this as a teaching moment... What can be done to improve this massive web resource? Who gets to make these decisions? What might we (as individuals or as a class) do about this?

There are many, many guides to editing Wikipedia and making your own pages. A great place to start is this training library set up by the folks at Wiki-Education: https://dashboard.wikiedu.org/training/students.



Appendix J: Mock-grant Proposals for Community Initiatives by K. Martin

Overview:

Grant writing is an often-untaught skill that is necessary in a wide variety of jobs. This assignment, that can scale well from 2nd year to 4th and beyond, gets students thinking about fundraising with local community groups, and, in times where meeting is not possible, no contact with the group is necessary.

Pedagogical Purpose:

To create an awareness of local community needs and to understand the grant writing process.

Student Value:

Writing a mock-grant proposal helps students to understand the needs of a local community organization, while also learning about the flow of finances from government (or other) grant schemes to the individuals that do the hands-on labour that helps these organizations stay afloat. Students can follow their own interests and create a grant from an organization they are already aware of or select one that is topical and related to the class or presenter in some way. Understanding that grant-funding is how many non-profits, charities, and co-ops get started (and continue to receive much of their income) helps students to reframe these organizations in their minds. Developing thinking about the organization's goals (usually drawn from a website or other public documentation) will increase student awareness of local needs and desires. Attempts at plotting out these needs and applying for limited funds to solve social issues will demonstrate the many-layered difficulties associated with this work, building a new-found respect for those that do this work full-time.

Sample Assignment Description:

The instructor should prepare the following in advance of the course and plan to walk students through them in detail:

- A set of guidelines for application to the Mock Grant. These can (and should, where possible) be based on existing grant applications and should fit the discipline of the course (SSHRC PEGs for Humanities students, Trillium Grants for Arts or Social Work students, for example).
- Clear indications of what is expected of the student for each section of the application, modified to fit their level of education.
- Slides about how to build a budget, one of the most challenging things for students to understand. There are many available on the web, but it's good to outline particulars of working with Canadian funding bodies.
- A list of potential community organizations with accessible, online, public material about their mandates, goals, concerns, and contributions to local life.

Note for instructors:

From the beginning of the term, make students aware of the style of this assignment, so they have a lot of time to think things through and find an organization that they're interested in. Encourage students to use their skills (as future historians, artists, scientists, etc) to think through how they understand the goals of their chosen organization and how their own knowledge will build a fundable project to support them. You can scale this assignment up or down by changing the application size and the amount of money one can apply for.



Ideally, having a 2-step assignment, with a 2-3 page "letter of intent" submitted for grades in the first half of term for the instructor to provide feedback and a final polished version of the grant as a final project. This could, however, be a smaller one-off assignment focused on understanding the needs of community members.

As the information for this project can be drawn from online resources, this could be an assignment for an online, distance, or hybrid course. You could increase interest in any course by selecting one or two particular community organizations and having a guest speaker come in and address the course about their needs and desires



References

- Alderwick, Stacey and Melissa Tanti. (2019) "Moving Bravely Forward: Anti-oppression Strategies for Critical Community Engagement." International Institute for Critical Studies in Improvisation. University of Guelph. 10 October.
- Anisef, P., Axelrod, P., & Lennards, J. (2012). Universities in Canada. *The Canadian Encyclopedia*. https://www.thecanadianencyclopedia.ca/en/article/university.
- Ausubel, David P., and Mohamed Youssef. "The Effect of Spaced Repetition on Meaningful Retention." Journal of General Psychology 73 (1965): 147. ProQuest. Web. 17 June 2021.
- Barnett, R. (1994) The Limits of Competence. Buckingham: SRHE/Open University Pres.
- Boveda, Mildred. (2019) "An Afro-Latina's Navigation of the Academy: Tracings of Audacious Departures, Reroutings, and Intersectional Consciousness." Feminist Formations 31 (1):103–123
- Butin, Dan W. (2003). "Of What Use Is It? Multiple Conceptualizations of Service Learning Within Education." *Teachers College Record*. 105.9, pp. 1674-92.
- Cassar, A., Funk, R., Hutchings, D., Henderson, F., Pancini, G. (2012). "Student Transitions -- evaluation of an embedded skills approach to scaffolded learning in the nursing curriculum." *The International Journal of the First Year in Higher Education*. 3.1, pp. 35-48.
- Chambers, Tony. (2009). "A Continuum of Approaches to Service Learning within Canadian Post-secondary Education." *Canadian Journal of Higher Education*. 39.2, pp. 77-100.
- Chin, C., & Brown, D. E. (2000). Learning in science: A comparison of deep and surface approaches. *Journal of research in science teaching, 37*(2), 109-138.
- Clark, D. (2018). Improving Your Listening Skills. *LinkedIn Learning*. https://www.linkedin.com/learning/improving-your-listening-skills/welcome?u=56996833.
- Cohen E.G., Lotan, R.A., Scarloss, B.A., Adele R. (1999). "Complex Instruction: Equity in cooperative learning classrooms." Theory into Practice. 38 (2): 80-86.
- Community Engaged Scholarship Institute, and Student Life. "Community Needs Assessment in Experiential Learning." *University of Guelph's Experiential Learning Hub.* (2018). https://www.cesinstitute.ca/sites/default/files/Community%20Needs%20Assessment%20Report%20Infographic%202018.pdf
- Crouch, C.H., Mazur, E. (2001). Peer Instruction: Ten Years of Experience and Results. *American Journal of Physics*. (69), 970-977.
- Czerniewicz, L., Agherdien, N., Badenhorst, J. et al. A Wake-Up Call: Equity, Inequality and Covid-19 Emergency Remote Teaching and Learning. Postdigit Sci Educ 2, 946–967 (2020). https://doi.org/10.1007/s42438-020-00187-4
- Dahl, A., Peltier, J., & Schibrowsky, J. (2018). Critical Thinking and Reflective Learning in the Marketing Education Literature: A Historical Perspective and Future Research Needs. *Journal of Marketing Education*, 40(2), 101–116. https://doi.org/10.1177/0273475317752452

- Da Cruz. (2017). Critical community engaged scholarship: Communities and universities striving for racial justice. *Peabody Journal of Education*, *92*(63), 363-384
- Davidson, Cathy. (2015, August 4). "How Do I Get Started? A Step-by-Step Guide to Designing a Student-Centred Classroom, Pt.1." *Humanities, Arts, Science, and Technology Alliance and Collaboratory (HASTAC)*. https://www.hastac.org/blogs/cathy-davidson/2015/08/04/how-do-i-get-started-step-guide-designing-student-centered
- DeGagné, M. (2021). Bringing the Tools of Success to the Indigenous Community in the Time of Covid. *Child & Youth Services*, 1–4. https://doi.org/10.1080/0145935X.2020.1834947
- Devis-Rozental, C., & Farquharson, L. (2020). What influences students in their development of socioemotional intelligence whilst at university? *Higher Education Pedagogies*, *5*(1), 294–309. https://doi.org/10.1080/23752696.2020.1820887
- Eddy, S.L., Brownell, S.E., Thummaphan, P., Lan M-C., Wenderoth, M.P. (2015). Caution, Student Experience May Vary: Social Identities Impact a Student's Experience in Peer Discussion. CBE-Life Sciences Education. (14), 1-17.
- Entwistle, N. (2003). Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts. TLRP Conference 2000, Leicester, UK. Available at http://www.leeds.ac.uk/educol/documents/00003220.htm
- Fink, L. D. (2013). *Creating Significant Learning Experiences: An integrated approach to designing college courses.* Jossey-Bass.
- Fenech, R., Baguant, P., & Alpenidze, O. (2020). Academic emergent strategies and experiential learning cycles in times of crisis. *Academy of Strategic Management Journal*, 19(5), 1–13.
- Ford, K.A. (2011). Race, gender, and bodily (mis)recognitions: Women of color faculty experiences with White students in the college classroom. *Journal of Higher Education*, 82, 444-478.
- Gillis, Alanna. (2018). "Reconceptualizing Participation Grading as Skill Building." *Teaching Sociology.* 47 (1), 10-21.
- Granatstein, J. L. & Neary, P. (1998). *The Veterans Charter and Post-World War II Canada*. Kingston, ON: McGill-Queen's University Press.
- Hill, C., Rosehart, P., St. Helene, J., & Sadhra, S. (2020). What kind of educator does the world need today? Reimagining teacher education in post-pandemic Canada. *Journal of Education for Teaching: JET*, 46(4), 565–575. https://doi.org/10.1080/02607476.2020.1797439
- Howard, J.R., Short, L.B., Clark, S.M. (1996). "Students' Participation in the Mixed-age College Classroom." Teaching Sociology. 24 (1), 8-24.
- Ibrahim, S., Fowler, A., & Kiggundu, M. (2021). Business management education in the African context of (post-)Covid-19: Applying a proximity framework. *Africa Journal of Management*, 7(1), 13–38. https://doi.org/10.1080/23322373.2021.1878807
- Johnson D.W., Johnson R.T., and Smith K.A. (1991). *Active Learning: Cooperation and the College Classroom.* Edina, MN: Interaction Book Company.

- Johnson M.A., Lawson A.E. (1998). What Are the Relative Effects of Reasoning Ability and Prior Knowledge on Biology Achievement in Expository and Inquiry Classes?" *Journal of Research in Science Teaching.* (35), 89-103.
- Jordan C. (Editor) (2007). Community-Engaged Scholarship Review, Promotion & Tenure
 Package. Peer Review Workgroup, Community-Engaged Scholarship for Health
 Collaborative, Community-Campus Partnerships for Health. Complete document
 a vailable at http://depts.washington.edu/ccph/pdf files/CES RPT Package.pdf.
- Kang SHK. Spaced Repetition Promotes Efficient and Effective Learning: Policy Implications for Instruction. *Policy Insights from the Behavioral and Brain Sciences*. 2016;3(1):12-19. doi:10.1177/2372732215624708
- Khan, Shamus Rahman. (2011). *Privilege: The Making of an Adolescent Elite at St. Pau's School.*Princeton: Princeton UP.
- Kolb, A. Y., & Kolb, D.A. (2005). Learning styles and learning spaces: enhancing experiential learning in higher education. *Academy of Management Learning & Education*, 4(2), 193-212.
- Kolb, D. A. (1984). Experiential learning: experience as the source of learning and development. Prentice-Hall.
- Konstantinou, I. & Miller, E. (2021). Self-managed and work-based learning: Problematising the workplace–classroom skills gap. *Journal of Work-Applied Management*, *13*(1), 6–18. https://doi.org/10.1108/JWAM-11-2020-0048
- Kotsopoulos, D. (2010). "When Collaborative is not Collaborative: Supporting student learning through self-surveillance." International Journal of Educational Research. 49 (4-5), 129-140.
- Lashley, M., Acevedo, M., Cotner, S., & Lortie, C. (2020). How the ecology and evolution of the COVID-19 pandemic changed learning. *Ecology and Evolution*, *10*(22), 12412–12417. https://doi.org/10.1002/ece3.6937
- Leal-Rodríguez, A., & Albort-Morant, G. (2019). Promoting innovative experiential learning practices to improve academic performance: Empirical evidence from a Spanish Business School. *Journal of Innovation & Knowledge*, 4(2), 97–103. https://doi.org/10.1016/j.jik.2017.12.001
- Leary, M., & Sherlock, L. (2020). Service-Learning or Internship: A Mixed-Methods Evaluation of Experiential Learning Pedagogies. *Education Research International*, 2020, 1–9. https://doi.org/10.1155/2020/1683270
- Lee, G., McGuiggan, R., & Holland, B. (2010). Balancing student learning and commercial outcomes in the workplace. *Higher Education Research and Development*, *29*(5), 561–574. https://doi.org/10.1080/07294360.2010.502289
- Mamary, Anne. (2003) "Interventions: An all-woman first year college seminar." *Feminist Studies*. 29 (2), 453-60.
- Marginson, Simon. (2016). Academic Matters, https://academicmatters.ca/higher-education-and-growing-inequality/

- McDuff, E. (2012). "Collaborative Learning in an Undergraduate Theory Course: An Assessment of Goals and Outcomes." Teaching Sociology. 40 (2), 166-76.
- Menekse M., Stump G.S., Krause S., Chi M.T.H. (2013). "Differentiated Overt Learning Activities for Effective Instruction in Engineering Classrooms." Journal for Engineering Education. 102 (3), 346-374)
- Middleton, R.A., Rollins, C.W., Sanderson P.L., Leung P., Harley, D.A., Ebener, D., Leal-Idrogo, A. (2000). "Endorsement of Professional Multicultural Rehabilitation Competencies and Standards: A Call to Action." Rehabilitation Counselling Bulletin. 43 (4), 219-240.
- Mitchell, T.D., Donahue D.M., Young-Law C. (2012). "Service Learning as a Pedagogy of Whiteness." Equity and Excellence in Education. 45 (2), 612-629.
- Morton, M. (2013). Practicing principles of community engaged scholarship in a fourth-year seminar. *Teaching and Learning Innovations Journal*, 16, 1-20
- Morton, M.(n.d.). The No Contact Rule of Community FOCUSED Learning (CFL): An ethical and pedagogically promising model of community engaged learning in large undergraduate classes" (unpublished manuscript).
- Morton, M., Varghese, J., & Thomson, L. *The VALUE of community engaged teaching and learning is in the values: Advancing students'' learning outcomes*. Unpublished manuscript.
- Neklason, A. (2019). Elite-College Admissions Were Built to Protect Privilege. *The Atlantic*. https://www.theatlantic.com/education/archive/2019/03/history-privilege-elite-college-admissions/585088/.
- Ochia, R. (2021). A Hybrid Teaching Method for Undergraduate Biomechanics Lab. *Biomedical Engineering Education*, 1(1), 187–193. https://doi.org/10.1007/s43683-020-00033-w
- Polikoff, M., Silver, D., &Korn, Shira. (2020). What's the likely impact of COVID-19 on Higher Ed?. *Inside Higher Ed*. August 4, 2020. https://www.insidehighered.com/views/2020/08/04/analysis-data-national-survey-impact-pandemic-higher-ed-opinion
- Race, A., De Jesus, M., Beltran, R., & Zavaleta, E. (2021). A comparative study between outcomes of an in-person versus online introductory field course. *Ecology and Evolution, 11*(8), 3625–3635. https://doi.org/10.1002/ece3.7209
- Reagle, Joseph, and Lauren Rhue. "Gender bias in Wikipedia and Britannica." International Journal of Communication 5 (2011): 21.
- Rocca, K.A. (2010). "Student Participation in the College Classroom: An Extended Multidisciplinary Literature Review." Communication Education. 59 (2), 185-213.
- Sheffield, R. S. (2017). Veterans' Beefits and Indigenous Veterans of the Second World War in Australia, Canada, New Zealand, and the United States. *Wicazo Sa Review* 32 (1): 63-79.
- Sheridan Centre for Teaching and Learning (SCTL). (2021). *Effective Teaching is Anti-Racist Teaching*. Brown University. https://www.brown.edu/sheridan/teaching-learning-resources/inclusive-teaching/effective-teaching-anti-racist-teaching

- Shier, M. (n.d.). Active Listening. *Student Success: An Invaluable Resource for College and University Students*. https://opentextbc.ca/studentsuccess/chapter/active-listening/.
- Smith M., Wood W., Adams W. (2009). Why Peer Discussion Improves Student Performance on In-class Concept Questions. *Science*. 323(5910), 122-124.
- Springer L., Stanne M.E., Donovan S.S. (1999). Effects of Small-group Learning on Undergraduates in Science, Math, Engineering, and Technology: A meta-analysis. *Review of Education Research*. (69), 21-51.
- Syrett, H. (n.d.). Active Listening in the Classroom. *Effective Learning Strategies*.

 https://courses.lumenlearning.com/austincc-learningframeworks/chapter/chapter-10-active-listening-in-the-classroom
- Tajner, Tania., Chovanec Donna., Underwood, Misty., Mian, Ayesha. (2013) "Critical Community Service Learning: Combining Critical Classroom Pedagogy with Activist Community Placements."

 Michigan Journal of Community Service Learning. Spring, pp. 36-48.
- Tanner, K., Chatman L.S., Deborah A. (2003). Approaches to Cell Biology Teaching: Cooperative Learning in the Science Classroom Beyond Students Working in Groups. *Cell Biology Education*. (2), 1-5.
- Toister, J. (2020). Customer Service Foundations. *LinkedIn Learning*.

 https://www.linkedin.com/learning/customer-service-foundations-2018/keep-your-customers-happy?u=56996833.
- Varghese, J., Morton, M. and Thomson L. (2017). "How Comes?' and Outcomes of Community Engaged Learning (CEL)". University of Guelph.
- Wagner, Claudia, David Garcia, Mohsen Jadidi, and Markus Strohmaier. "It's a man's Wikipedia? Assessing gender inequality in an online encyclopedia." In Ninth international AAAI conference on web and social media. 2015.
- Walker, Melanie. (2009) "Capabilities and justice: fostering young people's full participation in education, work and society." Invited address given at University of Dortmund, Germany, 20 March.
- ---. "Making a World that is Worth Living In': Humanities teaching and the formation of practical reasoning." (2009) Arts & Humanities in Higher Education. 8.3, pp. 231-246.
- White, J.W. (2011). "Resistance to Classroom Participation: Minority Students, Academic Discourse, Cultural Conflicts, and Issues of Representation in Whole Class Discussions." Journal of Language, Identity, and Education. 10, 250-65.
- Wickett M.S. (2000). "Nurturing the Voices of Young Mathematicians with Dyads and Group Discussions." Focus Issue "Children as Mathematicians" of Teaching Children Mathematics. 6 (6), 412-415.
- Zirkle, David M. & Ellis, Arthur K. (2010) Effects of Spaced Repetition on Long-Term Map Knowledge Recall, Journal of Geography, 109:5, 201-206, DOI: 10.1080/00221341.2010.504780