An Agile Approach to Collaborative Online International Learning: A Case Study of Virtual Indigenous Food Sovereignty and Public Policy Internships in Aotearoa (New Zealand) and Ontario, Canada

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Abstract

COVID-19 and the policy shift to lockdowns had a considerable impact on global higher education. Campuses transitioned to virtual, online teaching, leveraging a host of learning technologies to deliver educational content. While many universities had existing infrastructure to shift to online content delivery, interactive, collaborative learning within this virtual teaching space was not as simple. Students were unable to travel for valuable exchange and field-based learning activities, including applied research and internship opportunities. This best practices article considers one attempt during COVID-19 lockdowns in Aotearoa (New Zealand) and Ontario, Canada to co-create and deliver an innovative, cross-national virtual learning environment. The project that emerged from these unprecedented circumstances asked: how can students in different countries, on opposite sides of the globe, engage in virtual collaborations to develop practical insights into global, locally relevant public policy problems? The model leveraged existing academic staff, university resources, and existing relationships between researchers and community organizations to provide a successful model.

Keywords: virtual international exchanges, collaborative online international learning, online instruction, Indigenous education, COVID-19

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Higher education has seen burgeoning interest in creating virtual international student learning experiences. Some of these efforts have appeared under the headings "virtual international exchanges" (VIEs) and "collaborative online international learning" (COIL). Advances in videoconferencing and other technologies for remote collaboration, which received a massive boost during the COVID-19 pandemic, provide exciting new affordances for experimenting with how these learning experiences may be created. The pandemic reminded us that the benefits of virtual international learning, which already included ways to overcome time or cost barriers preventing many students from participating in more conventional international exchanges, now also offer a way to experience international learning connections even amidst lockdowns and border closures.

This article explores three research questions, each of which addresses a gap in the existing literature on virtual international learning experiences, providing answers learned from an online teaching and learning collaboration conducted at the height of the pandemic between the University of Auckland, located in Auckland, Aotearoa (New Zealand) and McMaster University, located in Hamilton, Canada.

The first research question: is how best might virtual international learning experiences be initiated by instructors, given their complexity? The answer provided by our collaborative project is the value of an *agile* approach in developing these experiences—a type of design thinking that emerged in software design but is becoming well recognized in public administration. Agile approaches can succeed under conditions of complexity and uncertainty where more bureaucratic linear planning can fail. This then addresses a gap in the literature: how to use an agile approach to overcome the administrative challenge of creating such experiences when university resources and instructors' time are scarce, making any innovation often seem impossible, especially a complex international one. Despite the growing impact of design thinking and agile approaches in a wide variety of fields, from engineering to public administration, its potential for overcoming this third gap has not received enough attention.

The second research question delves into the distinctive features of such collaborations when they involve Indigenous concerns and communities. While virtual learning experiences are often celebrated as ways to transcend cultural boundaries, they can also be expressions of privilege, condescension, or exclusion. Informed by the long and destructive experience of colonization and exploitative knowledge practices, Indigenous communities have developed powerful principles and understandings for knowledge collaborations with non-Indigenous researchers and students. We have drawn on these as the foundation of our project's connections with Indigenous communities.

The third research question asks how a policy internship or community practicum component can be added to go beyond more straightforward initiatives to connect classrooms on campuses in different countries. Despite the widely recognized value for students of such practical applied work experience, relatively little has been written about how to do this virtually.

Our project, carried out from two locations on opposite sides of the world, with diametrically opposed seasons, academic calendars, and time zones, in the midst of a pandemic, and bringing together different community partners and different levels of students (upper-level undergraduate students from McMaster and senior undergraduate and Masters students from Auckland), provided a unique opportunity to evaluate the benefits of an agile

approach for overcoming conventional obstacles to creating international learning experiences. This article focuses on identifying best organizational practices learned through the process of design and implementation of this community-engaged project rather than adding to existing research on the impacts of a COIL experience on students in the course (e.g., Aquino et al, 2023; Vahed and Rodriguez, 2021).

In the remainder of this article, we develop these themes in four sections. The first section identifies the three gaps in the literature on virtual international learning experiences that our three research questions address. The second section provides an overview of our project and how it was planned and implemented. The third section focuses on each of the three research questions in turn. The final section offers insights for possible future research.

Literature Review

In this section we review the three literatures and practices most closely associated with each of the three research questions addressed by our project, identifying the gaps that the lessons from our project address. As online collaboration has become easier with developments in technology, interest in and experience has grown with what, for convenience, we will call collaborative online international learning (COIL), with this also referring to similar learning experiences with different names such as VIEs. There is now a sizable literature providing evidence of the benefits of COIL, such as intercultural awareness and COIL's greater accessibility as compared to conventional exchanges.

Comprehensive recent edited volumes provide valuable detailed advice to instructors and universities about how to develop COIL programs (Rubin and Guth, 2022; Johnston and López 2022b). Other recent contributions provide insights into how COIL was used during the pandemic (Cotoman et al., 2022; Liu and Shirley 2021), analysis of the inclusion and equity issues associated with COIL that span the Global North-South boundary (Wimpenny et al., 2022); and surveys of student opinions about their COIL experiences (Aquino et al., 2023; Hackett et al., 2023; Vahed and Rodriquez, 2021).

Our project contributes to and goes beyond this literature in three ways. First, it identifies the value for COIL projects of what has come to be called an "agile" approach to project management. Second, because the project included Māori and First Nations peoples in both project design and implementation, it contributes to the relatively scarce literature on COIL and Indigenous communities. Third, we provide insights into the distinctive potential of linking virtual internships or practicums to COIL experiences.

Agile Approaches to COIL projects

A key challenge with COIL projects is that they frequently have been initiated as bottom-up experiments by enthusiastic instructors with no institutional support (and consequently uncertain sustainability and scalability) leading Guth and Rubin, global leaders in developing COIL approaches, to note the lesson that the COIL model "increasingly insists upon" is "for COIL courses to be successful, there must be financial, administrative, pedagogical, and technical support" (Guth and Rubin, 2015, p. 21). While we agree that institutional support is valuable, we wish to further refine the bottom-up model based on our experience as an alternative to insisting on top-down institutional support as a precondition

for initiating a COIL experience. Acquiring that institutional support in advance of a COIL initiative can be as daunting as initiating a COIL experience without institutional support.

Related to COIL is the concept of an agile design. "Agile" is increasingly recognized in government and other large organizations as an alternative to "waterfall" top-down linear *ex ante* detailed planning under conditions of complexity (Mergel et al., 2018). As Mergel has defined "agile," it "includes the mindset and its related work practices to respond to changing user needs for the design and delivery of an innovative solution to a wicked problem." (2023, p. 2). The concept originated with the 2001 "Manifesto for Agile Software Development" and a call for "individuals and interactions over processes and tools"; "working software over comprehensive documentation"; "customer collaboration over contract negotiation"; and "responding to change over following a plan" (Beck et al., 2001). Resonating also with the emphasis of design thinking on empathizing with users, non-linear processes, rapid prototyping, and iteration, Agile is a useful way to connect the flexibility that was a crucial aspect of the success of our project to larger recognized principles of governance and planning. We found that approaches to project planning that have come to be labelled "agile" matched our experience well. Yet, in this project, an agile approach alone was insufficient. We added to the complexity of the design challenge the need to craft a project that would also collaborate with Indigenous communities on the design and delivery of an applied policy project.

Indigenous Communities and COIL

While the literature confirms the value of virtual internships and practicums, the integration of such internships into COIL projects involving two campuses in different countries has not been adequately considered, especially when these both involve Indigenous communities. Insights from our project help address this gap.

The most widely accepted working definition of Indigenous peoples was offered by Martínez Cobo as Special Rapporteur for the United Nations Sub-Commission on Prevention of Discrimination and Protection of Minorities who offered that

> Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop, and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system. (Martínez Cobo, 1986, p. 2)

In Canada, the term "Indigenous" is also used to collectively describe First Nations, Métis, and Inuit. However, using First Nations, Métis and Inuit better recognizes that there are distinct groups of Indigenous peoples in Canada who have their own political organizations, urban agencies, economies, histories, cultures, languages, spiritual beliefs, and territories. There are also distinctions within these groups (for example, there are many distinct First Nations communities in Canada). Although a distinctions-based approach is better, sometimes this article uses "Indigenous" to identify experiences that may be held in common

by First Nations, Inuit, and Métis peoples. This is consistent with the approach used in other inquiries, such as the National Inquiry into Missing and Murdered Indigenous Women and Girls.

The second site for this project was Aotearoa (New Zealand). Aotearoa is an island nation located in the South Pacific formed in 1840 by te Tiriti o Waitangi (Treaty of Waitangi) between the land's Indigenous Māori people, and Pākehā (white settlers) represented by the British Crown (Belich, 2002). These documents, one in te reo Māori (the Māori language), the other English, are often cited as the foundational documents of Aotearoa. The fundamental point of difference between the two versions concerns what Māori exchanged with Pākehā. In the English language Treaty of Waitangi, the Crown was granted sovereignty. The te reo version, te Tiriti o Waitangi, which was signed by a far greater number of Māori chiefs, ceded only governance over the territory. Most Māori scholars and political leaders reject that Māori ceded sovereignty to the British Crown and that "the power conferred …. was not an absolute unqualified right to displace Māori authority in the powers of public administration…" (Came et al., 2023, p. 1). This debate has had far reaching consequences that remain contested. Health policy, for example, has recently been the subject of policy change with the creation of a separate Māori health authority and a general reorganization of the health system, discussed further below. The experiences of Indigenous peoples in Canada and Aotearoa in university teaching and learning must be informed by their respective positions vis-à-vis the learning and education systems and the inherent power structures embedded in them.

The literature on COIL highlights the challenge of "the power dynamics that determine how, when, and to what extent collaboration can take place," (Moore and Simon, 2015, p. 7) including for instance "cultural, linguistic, technological and educational hegemonies" (Helm et al., 2012, p. 104). Despite the centrality of these concerns and with cross-cultural learning for COIL, the literature on its relationship to Indigenous communities is small. Several studies have focused on Indigenous students' experiences with online learning. These have identified, for instance, the value of creating distinctive spaces for Indigenous students to connect with one another (Reedy, 2019) and to customize "Indigenous virtual space" (Dyson, 2003, p. 557). The relevance of broader theoretical concepts such as "constructivist learning" that is "encountered, practiced and applied in real world contexts" (McLoughlin and Oliver, 2000, p. 61) and "situated cognition" that incorporates "authentic cultural activity" (McLoughlin and Oliver, 2000, p. 61), as well as incorporating "the skills and values of the community, its cultural traditions and its values and issues" (McLoughlin and Oliver 2000, p. 65) have been emphasized.

Case studies of COIL and Indigenous students have been discussed, such as the First Peoples' Project within the iEARN network, which brought together Indigenous students from five continents to engage in interaction, collaboration, and humanitarian work, exchanging writing and art (Wells, 2007, p. 665). The Division of Aboriginal Peoples' Health, in collaboration with the University of Melbourne, First Nations Studies and Arts at the University of British Columbia, the Indian Residential School Survivors Society, and Xay'tem Longhouse Interpretive Centre/Simon Fraser University, piloted in 2010 an intensive, online, cross-institutional course that provided students the opportunity for comparative inquiry of Indigenous experiences of colonization and the manifestations of that experience in the contemporary socio-cultural environment. Smith (2021) reports on the initiation of a virtual Indigenous Student Exchange at York University in Canada that includes a series of workshops on topics like global Indigeneity. Greyling and Zulu (2010)

demonstrate the importance of community involvement in a project to create a digital library of local Indigenous knowledge sponsored by public libraries in South Africa.

In both Aotearoa New Zealand and Canada, there is a long history of harmful research conducted on, rather than with, Indigenous communities that has helped maintain colonial power, and misunderstood, stigmatized, or exploited communities, taking knowledge and giving nothing back (Smith, 2021). The processes of reconciliation are far from complete, so that new educational or research initiatives, such as the one this article analyzes, need to be highly attentive to this gap. Yet, against these harmful legacies, Indigenous communities have continued to undertake significant Indigenous-led research endeavors that center their own ways of knowing and being (Te Awekotuku, 1991; Mahuika, Berryman & Bishop, 2011).

Indigenous researchers continue to make significant contributions to the development of Indigenous-led research, that emphasizes Indigenous needs, realities, and aspirations, across the globe. These have been articulated in governance processes such as the First Nations principles of ownership, control, access, and possession (OCAP), which guides research on First Nations in Canada or the rules of the Canadian granting councils that govern research ethics, Chapter 9 of which is on First Nations, Inuit, and Metis Peoples of Canada and which reflects a long process of discussion in and with Indigenous communities (First Nations Governance Centre, n.d.).

As introduced above, the Aotearoa New Zealand policy context is informed by Te Tiriti o Waitangi. As Berghan et al. (2017) emphasize, Te Tiriti provides agreement for Tauiwi (non-Māori) settlement in Aotearoa. As the authors articulate, "Te Tiriti affirms Māori sovereignty and positions Māori aspirations at the heart of ethical practice*"* (2017, p. 10). Te Tiriti o Waitangi and its derived principles express a powerful relational and ethical framework that guides intercultural engagements and relationships. Yet, it remains largely unrealized and should be included with other treaties that promised indigenous people's partnerships of equal benefit, equity, wealth, and well-being (Bishop, Ladwig, & Berryman, 2014). In many areas of Aotearoa's public policy landscape, Te Tiriti o Waitangi is well represented in strategic documents, but less evident in everyday practice (Came and Tudor, 2016). Our project aimed to incorporate these legacies, advances, and gaps into account and to contribute to better understanding of how they should inform a COIL project that is working with Indigenous communities.

COIL, VIE, and Virtual Internships

In this section we focus on virtual internships and practicums, a type of experience that was a distinctive feature of our project and has received minimal attention in the literature. Ruggiero and Boehm (2016, p. 105) have described a virtual internship as one that provides "provides opportunity for non-traditional students to participate in a practical experience regardless of their physical location and other obstacles." Reed et al. (2018) have noted the rise of virtual internships as a response to growth in competition within the workplace and the increasingly cross-border nature of work. Bayerlein's (2015) seminal study in the virtual internships space found that virtual internships or virtual learning experiences are important for students because prospective employers seek candidates who not only have requisite technical skills but have also had opportunity to develop necessary soft skills, such as the ability to engage in teamwork, to exhibit problem-solving skills, and to

provide clear written and oral communication. Workplace interactions are best suited to help students develop these marketable soft skills.

The many benefits of virtual internships have been the subject of studies. The networking spaces (TC Global, 2022) allow students to take their first steps to develop and nurture global networks with a diverse range of people and organizations. Moreover, these internships provide opportunities to develop effective self-discipline, time management, and remote working skills essential during the pandemic and in a post-COVID-19 world (TC Global, 2022; Gill, 2020), recognized as valuable by employers (Irwin et al., 2021).

Introduction

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COIL, VIE, and Virtual Internships

In this section we focus on virtual internships and practicums, a type of experience that was a distinctive feature of our project and has received minimal attention in the literature. Ruggiero and Boehm (2016, p. 105) have described a virtual internship as one that provides "provides opportunity for non-traditional students to participate in a practical experience regardless of their physical location and other obstacles." Reed et al. (2018) have noted the rise of virtual internships as a response to growth in competition within the workplace and the increasingly cross-border nature of work. Bayerlein's (2015) seminal study in the virtual internships space found that virtual internships or virtual learning experiences are important for students because prospective employers seek candidates who not only have requisite technical skills but have also had opportunity to develop necessary soft skills, such as the ability to engage in teamwork, to exhibit problem-solving skills, and to provide clear written and oral communication. Workplace interactions are best suited to help students develop these marketable soft skills.

The many benefits of virtual internships have been the subject of studies. The networking spaces (TC Global, 2022) allow students to take their first steps to develop and nurture global networks with a diverse range of people and organizations. Moreover, these internships provide opportunities to develop effective self-discipline, time management, and remote working skills essential during the pandemic and in a post-COVID-19 world (TC Global, 2022; Gill, 2020), recognized as valuable by employers (Irwin et al., 2021).

Project Design and Implementation

In this section we explain the development and implementation of our project and how it addressed the three gaps in knowledge that we identified above. We start by providing a brief overview of the stages of our project. We then organize our account and analysis of the project into three sections that correspond to the gaps we have identified: the value of an agile approach; the distinctive features of virtual collaborations involving Indigenous communities; and how an internship or community practicum can be added to a COIL project.

Project Overview

The project genesis sprung from a 2020 discussion between researchers at the University of Auckland and McMaster University of the idea of creating a collaborative, team-based virtual environment for student-led "consultancies"—where senior undergraduate and master's students could collaborate on policy work in both locations. Relationships with Indigenous communities are a priority for both universities, and thus in early 2020 the initial concept discussed between Tim Fadgen at the University of Auckland and Tony Porter at McMaster University, expanded to connect with Kiri Edge, an Indigenous Māori Researcher with interests in social justice, community development, health and well-being, and education at the University of Auckland's Public Policy Institute and Chelsea Gabel from Red River Métis from Rivers, Manitoba, then a Canada Research Chair in Indigenous Well-Being, Community-Engagement and Innovation at McMaster University, to develop the project. The project coalesced around an acute need within both contexts, particularly so during the

COVID-19 pandemic: food policy and security.[1] Thus began a close collaboration to develop virtual internships or practicums relevant to Indigenous communities in the two countries, as well as joint relevant virtual course content, and experimentation with the relative benefits of different learning platforms for this distinctive type of COIL project.

Our team of four met online regularly through the remainder of 2020 to conceptualize the internship/practicum aspect of the project, to explore the most suitable technologies and platforms for implementing it, and to design and coordinate the course timelines, structures, content, and assignments at the two universities. The course began at McMaster University in January 2021, the start of McMaster's winter term, and for the University of Auckland, in March 2021, the fall start of their academic year's semester 1. The course convenors decided to maintain a relatively small cohort of students to ensure greater interaction and engagement. Ultimately, 24 students enrolled: 14 students from the Master of Public Policy program at the University of Auckland and 10 senior undergraduate students from the Indigenous Studies and Political Science programs at McMaster University.

The period of course schedule overlap in March and April also coincided with an opportunity for University of Auckland students to participate in an Indigenous food sovereignty panel at which McMaster students presented their in-progress research that was part of a Canada-wide virtual conference on food security in higher education.[2] Alongside these sessions, the students from both sites met virtually in smaller groups to compare their research projects. Beyond these activities, students and instructors from both universities met in two joint virtual sessions, the first to discuss Indigenous food sovereignty issues in the two countries, and the second where the McMaster students presented their finalized research and received feedback from the University of Auckland students. In June, the University of Auckland students presented their research at a virtual session in which McMaster instructors and students participated.

The internship/practicum aspects of the project at each location differed in interesting ways. Given the selected food policy space, the Auckland site selected a local health provider [then District Health Board (DHB)] responsible for health service delivery and policy within an area in Auckland heavily populated by Māori and Pacific peoples.[3] The project team collaborated with the Research and Evaluation Office within Ko Awatea—Innovation and Improvement Centre within Te Whatu Ora Counties Manukau (then Counties Manukau Health). Counties Manukau is the largest and most diverse catchment, providing healthcare to nearly 580,000 people (New Zealand Ministry of Health, 2021), with a high percentage of Māori and Pacific peoples, as well as a younger and socioeconomically most deprived population with inequitable health outcomes (New Zealand Ministry of Health, 2021). The

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[1] Seed funding was provided by Universitas 21 (U21). U21 is a consortium of 28 research-led universities located around the world, including the University of Auckland and McMaster University.

[2] Meal Exchange partnered with the Community Engaged Scholarship Institute, the Guelph Lab, and the University of British Columbia, the University of Guelph, McMaster University, and the University of Ottawa to launch the initiative "Promoting Food Security in Higher Education," a virtual conference series. The "Food Sovereignty and Indigenous Food Sovereignty on Campus" panel was on March 9, 2021. See https://www.mealexchange.com/events/event-one-apfld.

[3] This structure endured until policy changes in July 2022 replaced this structure of twenty District Health Boards (DHBs) across the country into four centralized agencies: Te Whatu Ora – Health New Zealand and a partner organization for Māori health called Te Aka Wahi Ora – Māori Health Authority, along with two other bodies (Public Health Agency and Wahikaha – Ministry of Disabled People).

team identified two areas of work. First was a contribution to an ongoing Healthy Policy Evaluation (HYPE) study of food and drink options available across Aotearoa's DHBs through policy assessment at Te Whatu Ora Counties Manukau. The second deliverable would see the students use and review the Health Equity Assessment Tool (HEAT) through application to the policy and through capturing of practitioner experience using the tool, to assess the utility of the tool for supporting equity action within healthcare contexts.

McMaster University's Indigenous community engagement evolved quite differently. McMaster is located near Six Nations of the Grand River, the largest (by population) First Nation in Canada, and it has many long-standing connections with it. McMaster University's Indigenous Studies Program (ISP) was established in 1992, becoming the Indigenous Studies Department in 2022. The project was very fortunate to have Adrianne Lickers Xavier, then the Acting Academic Director of ISP and McMaster Indigenous Research Institute In-Community Scholar, as a key participant in the project. Her PhD and subsequent research focused on Indigenous food security and sovereignty, and she has been very active in food-related programs at Six Nations, her community. This researcher led the McMaster students in producing an environmental scan of food security and food sovereignty projects in Southern Ontario that could provide useful insights for Six Nations food programs.

"Agile" and the Project

As discussed above, agile principles that have become prominent initially in software design (and subsequently more prominent in governmental and private sector project design and management) call for rapid prototyping and iterative experimentation in close ongoing collaboration with stakeholders rather than top-down "waterfall" approaches that seek to create integrated implementation plans. For cross-border university educational collaborations such as COIL, these two alternatives can be represented as instructor-driven experimentation versus projects that are initiated by a memorandum of understanding between university leaders who are prepared to deploy resources to create the collaboration. In this section we present and evaluate the degree to which our project aligns with the agile end of this continuum. We shall see that agile principles were continually central to the capacity of the project to move forward. We show this by discussing the sequential alterations that were made as we proceeded.

The design of the practicum components was similarly iterative. In Auckland, the project team learned that driving systems change to address food security and sovereignty as a preventative health focus was not something for which Te Whatu Ora Counties Manukau had then dedicated resources. The area was, however, recognized as a gap and the proposed partnership provided an opportunity to focus on it. We recognized the relational dimension of the project design emphasizing trust, mutual understanding, and shared values, which became of central importance. Another important design factor that appealed to Te Whatu Ora Counties Manukau staff was unique learning aims and the collaborative, co-design approach taken, involving all relevant partners. This was necessary to properly support students since the students would never physically visit the community due to COVID restrictions. The design approach also included the lived experience of frontline policy workers. This approach meant that there was substantive and sustained collaboration on the project brief, crafted to help students learn about the organization and the communities they serve.

At McMaster University, the COVID-19 lockdown was a major challenge since it was not possible for the students to travel to Six Nations. However, the research team was able to

draw on a member's experience and connection with food sovereignty issues at Six Nations to work with the students on developing projects that would be useful for the community. The southern Ontario cases that the students examined for insights for their report were identified through this process rather than being determined in advance of the course. As noted above, the Canada-wide conference at which the students presented their research in progress was unanticipated and required a creative pivot mid-course to organize the student panel.

Distinctive Features of Virtual Collaborations Involving Indigenous Communities

As noted above, the project was attentive to the legacies, policies, documents, ethical issues, and governance documents relevant to research involving Indigenous communities such as principles of ownership, control, access, and possession (OCAP), which guides research on First Nations in Canada, or Te Tiriti o Waitangi and its derived principles that express a powerful relational and ethical framework that guides intercultural engagements and relationships in Aotearoa New Zealand. The course design and content and the internships/practicums aimed to reflect these principles.

One crucial aspect of this was the inclusion of Indigenous scholars in the project. As noted above, Kiri Edge is Indigenous Māori and Adrianne Lickers Xavier is Red River Métis, and both have extensive experience in doing research with Indigenous communities; Chelsea Gabel is part of the Six Nations community. The sessions of the courses put a strong emphasis on understanding ethical and political issues associated with research and with food sovereignty and security in Indigenous communities. The internship/practicum activities involved very different relations with Indigenous histories and communities in the two locations, and students' participation in sharing of experiences with these differences between our two locations was an important part of the project.

The McMaster course included a series of guest speakers with expertise relevant to Indigenous food sovereignty. These Zoom sessions were recorded and made available to University of Auckland students. Adrianne Lickers Xavier introduced and explained the distinction between food security and food sovereignty, with the latter involving a more holistic self-determination, control and empowerment linked to the land and important for Indigenous physical and spiritual health. Kitty Lickers spoke inspiringly about her own community food initiatives at Six Nations during the pandemic. Dr. Hannah Tait Neufeld spoke about the legacy of colonialism in Southwest Ontario for Indigenous women, including the impact of residential schools in destroying traditional Indigenous food systems. Dr. Michael Robidoux spoke about his research on the challenges of access to wild food in remote Indigenous communities. Dr. Bernice Downey, Associate Dean of Indigenous Health at McMaster, spoke about Indigenous research ethics and methods. Dr. Shanti Morell-Hart discussed the importance of knowledge about ancestral Indigenous food systems and contemporary Indigenous culinary heritage, food sovereignty, treaty rights, and claims to knowledge associated with intellectual property issues. Dr. Adrienne Davidson spoke about the history and current struggles over treaty rights in Canada, including clashes over Mi'kmaq fishing rights.

On the Auckland side, the primacy of relationships within Māori communities and Pacific cultures necessitated an emphasis on relationships and fostering cross-cultural understanding and genuine meaningful engagements. Given this, the Auckland-based team emphasized these elements in its course design and learning materials. Production and delivery of this content was facilitated by Kiri Edge and invited guest speakers: Professor of

Indigenous Studies, and Co Director of Ngā Pae o te Māramatanga, New Zealand's only Māori Centre of Research Excellence at the University of Auckland, Dr Linda Nikora and Dr Neville Robertson, community psychologist and independent researcher, and Associate of the Māori & Psychology Research Unit, The University of Waikato. The team participated in a highly engaging seminar on the importance and process of forming meaningful cross-cultural relationships for mutually beneficial collaborations and work outcomes. Students from both sites were invited to take part in the kōrero (conversation). We found that including sessions like this one, alongside policy-centric sessions and others, was essential to student enrichment and success. Not only this, but the sessions were stimulating for the teaching team as well, as each of us was able to explore elements of the message in our own work.

Numerous insights were conveyed in the student reports on the virtual conversations they had with their counterparts at the other university about the differences in Indigenous experiences in Aotearoa New Zealand and Canada. Students discussed the differences in the treaties between the British and Indigenous nations in the two countries, and the similarities in the subsequent failures of the settler governments to honor those treaties, with ongoing implications for land rights and access to food (for instance, lack of access to the ocean for fishing). They identified similarities such as the impacts of climate change, health inequalities, the impact of colonialism on traditional food knowledge, or "hockey puck" politics where different governmental levels or authorities avoid responsibility for funding programs. They also discussed differences that were evident in their research projects, including the reserve system in Canada, and the opportunities this provided for food sovereignty initiatives, as compared to the focus on Indigenous food security within the more nation-wide government-led program that the University of Auckland students were participating in.

At McMaster the students worked closely with Adrianne Lickers Xavier to partner with Six Nations Health Services to address ways that food sovereignty can be addressed by default and in a more purposeful way, which has implications for how Six Nations Health Services would spend funding dollars and build capacity. The students' project produced a review of the literature on Indigenous food sovereignty in the region identified a gap regarding Indigenous people living within urban communities, while also being helpful for conceptualizing an adaptable holistic framework rooted in culture, land, decolonization, and resurgence, moving beyond one based on individualized rights. They also provided an environmental scan of Indigenous and non-Indigenous community food initiatives in the greater Toronto area, providing insights into the potential for linking urban gardens to food sovereignty initiatives. They produced a review of existing and past programs at Six Nations, to assess which received the biggest response from the community and to consider the value of linking programs to natural world cycles or ceremonial cycles. The students also produced reflections on ethical issues associated with research in Indigenous communities and emphasized the importance of reciprocity and relationship-building for research in Indigenous communities.

In Auckland, students produced an assessment of a Healthy Food and Drinks Policy, which scored the policy comprehensiveness on a total of 26 indicators: "13 indicators on nutritional standards, 8 indicators on promotion of a healthy food and drinks environment, and five indicators on communication, implementation and evaluation of the policy" (Gerritsen, Kidd, Rosin, Shen, Mackay, Te Morenga, & Mhurchu, 2022). The policy intent is to ensure that visitors to health and care services are supported to easily access foods that support healthy, thriving lives, while also demonstrating leadership, as a health provider, for

creating such food environments. This assessment contributed to a broader study of policy implementation across Aotearoa: the HYPE Study. As a unique component of this placement, students were then required to consider how the policy assessment may address Indigenous food preferences, practices, and values, growing in their capability to think critically about policies, policy development processes, and policy assessment tools, and the potential of these tools to inadvertently exclude these foods from the assessment.

Further building these skills, the students also had the opportunity to explore HEAT, engaging with practitioners, including those who identify as Māori, to understand the applied use of this tool within healthcare services. HEAT is applied within policy, programs, or service development to support understanding health inequities, design interventions to reduce inequities, review and refine interventions, and evaluate intervention outcomes and impacts (Signal et al., 2008). Drawing on practitioner experience and existing literature, students identified potential strengths and limitations of the tool, particularly regarding how it may benefit (or fail to benefit) indigenous peoples as a prioritized equity group in Aotearoa. Introducing students to this tool positioned policy firmly as an equity intervention and illuminated the need to evaluate policy interventions to understand outcomes and impacts for accountability purposes. Students' written reports on this exercise were used to support staff in their practice of HEAT application.

Lessons Learned

The project provided lessons relevant to each of the three research questions of this article. In this section, we return to each research question in turn. Our first research question: how best might virtual international learning experiences be initiated by instructors given their complexity? We consider this project a successful example of how an agile design can provide an answer. From the outset, we intended to create a project that would emphasize individual relationships and improvisation, and de-emphasize restrictive advance planning, a pre-selected platform, teaching model or tools. We prioritized collaboration with "customers" or in our case, the relevant communities in both countries. In sum, we found the flexibility of this approach a crucial reason for success. Moreover, given that these agile principles maintain significant purchase within the broader public sectors in both countries, we are confident the approach also helped to support student learning and contributed to their transitions to the workforce.

While we agree with Guth and Rubin (2015) that successful COIL will often require institutional "financial, administrative, pedagogical, and technical support," we found that this support can be tacit in nature if the project leaders are dedicated to the pedagogical or other goals for the collaboration. Here, the project did receive a small grant from the U21, which was used primarily to engage research and learning support assistants at various phases of the project. All other activities were done using existing resources at each institution. The project depended primarily on the entrepreneurialism of the several project leaders to craft a shared purpose and vision for the project. The ability to use existing independent study course codes at both institutions provided a significant degree of flexibility in course design and administration, offering essentially *tabula rasa* for the teaching team to build out a course that was fit for purpose.

Our second research question inquired into the distinctive features of COIL involving Indigenous communities. Previous COIL literature identified the need to be cognizant of power dynamics inherent to any international collaboration or engagement (Moore and

Simon, 2015; Beelen and Doscher, 2022, p. 34) and to consider the ways in which COIL can enhance inclusion and counter the effects of power asymmetries (Winpenny et al., 2022; Rubin 2022; Johnston and López 2022b, 278). This includes instances where there are "cultural, linguistic, technological and educational hegemonies" (Helm et al., 2012, p. 104). Yet, as observed earlier, the academic literature on how these important issues emerge within those projects engaging with Indigenous communities is scant.

It is important to reiterate that a key principle is the importance of research being guided by the interests and aspirations of the community of interest. Our project provided new insight into a question that had not yet been explored: what distinctive issues need to be considered in a COIL project involving research with Indigenous communities? What is explicit in these previous studies is the need to ensure that any collaboration is firmly rooted within the traditions of the Indigenous groups included in the project. Here, we needed to design a course with two sets of roots: one with Māori in Tāmaki Makaurau (Auckland), the other with Six Nations of the Grand River. To accomplish this, the team was formed through existing relationships that grew out from the initial idea to collaborate across the two countries.

Once the collaboration itself was thought desirable and the area of interest began to focus on the policies impacting on Indigenous communities, the team expanded to include Indigenous researchers as co-leads on the project. These relationships, in turn, led to identifying possible specific policy issues and community partners that held direct relationships with the Indigenous communities implicated in the food policy and security space within both countries and to the creation of specific terms of reference for the work and research-related activities that students would eventually undertake in both places, including the key role played by Adrianne Lickers Xavier. Moreover, a deliberate intention was made at this stage to promote the course to Indigenous students in both contexts to bring these students alongside for the course journey.

The centrality of cross-cultural relationships to this project cannot be understated. From the very beginning of the project, all course collaborators engaged in kōrero (dialogue) to ensure the project would "walk the walk" of ensuring an intentional Indigenous-led approach. This led to the development of a learning module for all students at both sites on navigating cross-cultural relationships that brought together Māori and community leaders on the importance and process of forming meaningful cross-cultural relationships in successful collaborations. We found that including sessions like this one, alongside policy-centric sessions and others, was essential to student enrichment and success. Not only this, but the sessions were stimulating for the teaching team as well, as each of us was able to explore elements of the message in our own work.

Our third research question asked how a policy internship or community practicum component can be added to a COIL project. Students at both project sites and professional and community organization members were offered a flexible, nimble learning and community-engaged research model that enabled regular engagement even during the strictest period of COVID-19 lockdowns in both Ontario and Aotearoa New Zealand. When most other applied learning programs were halted in both areas, this program thrived and offered students valuable, cross-cultural learning and applied, real-world work experience. The emphasis on cross-cultural learning coupled with a team-based project management model in Auckland, allowed students to develop both technical policy analysis skills through their work for the CM Health but also their soft skills in team-based communication and

problem-solving skills. They were identified in Bayerlein's (2015) work as one of the hallmarks of a successful virtual internship experience. Moreover, by design, the project embraced the new remote work paradigm and leveraged each university's access to widely used project platforms, such as Teams. As Irwin et al. (2021) demonstrated, these are relatively new skills important to new entrants to professional work. The students at McMaster University gained valuable experience in conducting research oriented to food sovereignty-related priorities and programs at Six Nations.

In future research it will be useful to explore the impacts of community-engaged COIL projects like ours on the students that participate in them. This could include an assessment at the end of the course as well as a subsequent follow-up when students will be able to assess the value of the project in the context of their post-graduation work experience.

Conclusion

The course team, community partners, and learners shared a sense of accomplishment when the course concluded. Lockdowns would persist for many more months in both locations and for the students involved; this opportunity provided valuable work experience and the opportunity to use the course deliverables as a writing or work sample to be used in job applications. Both sites gained from strengthening intra-institutional and trans-institutional relationships. The program had tremendous benefits for personal growth for all involved. Community partners gained important and often overlooked policy feedback and evaluation of work that often escapes the typical business as usual. Students were able to secure essential work experience, including team-based project management skills and collaborating on important work with real-world applications. Academic staff were able to forge new relationships and deepen existing ones. This was all done with a relatively modest allocation of additional funding[4] as well as the time the teaching and community teams gave to the project.

In our view, the project demonstrates a viable model for collaboration. Building on existing relationships and a broader willingness to engage students in a challenging and interesting learning environment may provide a way that bottom-up motivations (even without strong support from university administrators), when coupled with the agile project planning model, can lead to successful outcomes for all course stakeholders and contribute to robust, applied learning opportunities for students and staff alike that furthers the university's social purpose in the process. Ultimately, these projects have and always will depend on front-line academic staff starting with an entrepreneurial drive. Success can and should ultimately be measured not by the budget allocation or hours spent but instead by whether the project has met its intended goals. We believe that this project has and that it can serve as a model for others seeking opportunities for similar collaborations[5] but who rightly fear the many pitfalls and roadblocks along the road to project realization.

Declarations

[4] $10,000 USD, split equally between the two sites.
[5] For further detail about course objectives and organization, sample assignments of the course and the practicums please contact the authors at timothy.fadgen@auckland.ac.nz.

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