

Building relationships to bridge Western and Indigenous ways of knowing in small-scale agri-business as a path toward reconciliation

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Executive Summary

Western, science-based agricultural practices have been detrimental to ecosystems around the world as the globalization of food systems have evolved to become an integral part of our lives. On the other hand, Indigenous peoples have been stewards of the land and have lived off it since time immemorial. Additionally, Indigenous peoples have been disproportionately affected by environmental damage as well as social and political dehumanization through the residential school system.

The root of the reconciliation movement lies in local action and acknowledgement of indigenous history and relations. Although this movement has gained momentum in the Canadian government context, there is a lack of direction for small scale businesses to participate. The Mount Wolfe Farm (MWF) in Caledon, Ontario, Canada is an example of a small-scale, community supported agriculture (CSA) farm within the Oak Ridges Moraine that would like to preserve the ecological integrity of the landscape, contribute to the local food movement, and participate in reconciliation. Their vision is to replicate their model and expand their influence by creating an agricultural internship program using a land- and values-based curriculum to train future farm owners.

Through secondary literature review and semi-structured interviews, this thesis investigates how Indigenous ways of knowing can be effectively interwoven with an agricultural internship curriculum for use on a small-scale agri-business as a step toward reconciliation. The literature and interview responses suggest using two-eyed seeing as the pedagogy for the agricultural internship program. To formulate an effective internship that fulfills the MWF's objectives, the curriculum's learning objectives for the intern must include relationship building with others, the land and themselves. Building these relationships would effectively contribute to "reconciliation" at a local scale and help scale it out to other places as intended by the MWF. Additionally, there are implications for MWF's business practices when addressing reconciliation. The MWF can implement their internship program in four phases that are outlined in the paper. General recommendations for small-scale agri-business include:

Curriculum Objectives

1. Include relationship building with the land, oneself and others as a core component that is emphasized in each part of the curriculum: (a) Land, (b) Oneself and (c) Others.

Pedagogy

1. Use two-eyed seeing by involving Western and Indigenous perspectives side-by-side in each activity.
2. Integrate workshops and demonstrations about Indigenous crafts and practices by reaching out to the Indigenous community and the farm's network.
3. Incorporate storytelling and various art forms as a method of teaching and reflection.

Reconciliation through business practices

1. Improve business practices such as hiring and compensation to align with Indigenous governance structures.
2. Work with the Indigenous community to determine benefits to the community.
3. Educate interns and the community about their values and initiatives through engagement to scale out reconciliation.

Glossary

Values: things that are important to someone (Merriam-Webster Dictionary).

Principles: “a moral rule or belief that helps you know what is right and wrong and that influences your actions” (Merriam-Webster Dictionary).

Ways of knowing: the process of knowledge acquisition (Cochran et al., 2008).

Indigenous or traditional knowledge: I use these words interchangeably but could be defined as, “a lived world, form of reason that informs and sustains peoples who make their homes in a local area. From their perspectives, [it] is a bridge between human beings and their environments. It is the body of historically constituted knowledge that is instrumental in the long-term adaptation of human groups to the biophysical environment.” (Akena, 2012, p. 601).

Science: refers to the process of inquisition, observation and collection of information (Rice, 2005; Johnson et al., 2016).

Western: The way I use this term in my paper denotes the modern method to gain knowledge, not specific to the Western hemisphere but with emphasis on this region due to the location of the research.

Reconciliation: There are many definitions of reconciliation. This paper uses the definition provided by the Truth and reconciliation Commission of Canada: “reconciliation is about establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples in this country,” which has been tainted in the past. (Truth and Reconciliation Commission of Canada, 2015).

Pedagogy: This term refers to teaching methods used to deliver information as defined by the Merriam-Webster Dictionary, but when talking about Indigenous pedagogy, it also refers to the style and curriculum used to teach environmental education (Newberry, 2012).

Social or co-learning: A transformative process following inquiry that includes diverse perspectives and is a method used to initiate action. (Konig & Ravetz, 2017).

Introduction

The escalating severity of environmental issues requires the next generation to be prepared to manage the consequences and learn to respect the resources the world has to offer. Globalization of food systems have evolved to become more destructive to the environment compared to subsistence hunting and gathering from Indigenous communities. Indigenous peoples' relationship with the land provided them with knowledge about plant and animal beings to sustain themselves. However, currently, our education system has undermined the value of using Indigenous knowledge and principles to shift away from destructive ecological practices and toward better environmental and social relations (Kulnieks, Longboat & Young, 2013a; Cajete, 2005).

Academics such as David Orr and Jay Gould discuss the need to include love as a fundamental learning component in environmental education as humans are emotional beings that require bonds as a motivating factor to take action (Orr, 1994; Kulnieks, Longboat & Young, 2013).

“We cannot win this battle to save species and environments without forging an emotional bond between ourselves and nature as well – for we will not fight to save what we do not love.” – S.J. Gould (Orr, 1994, p.43).

However, modernity has diluted our bonds with ourselves and nature as well as our ability to express ourselves (Orr, 1994). The use of Indigenous pedagogy in environmental education has been widely discussed in the literature as a method to foster environmental understanding and protection. It emphasizes the creation of these bonds to fulfill environmental objectives. The current education system fails to change paradigms, which calls for more innovative ways to include Western and Indigenous knowledge systems in a cross-cultural setting (Kulnieks, Longboat & Young, 2013a).

Furthermore, Indigenous peoples have been disproportionately affected by environmental damage as well as social and political dehumanization through the residential school system. The indoctrination of Western values on Indigenous peoples has contributed to the loss of Indigenous knowledge, culture and values, which closely align with environmental values that are necessary to create an ecological ethos to reduce one's environmental footprint (Beckford, 2010). The government mandate to reconcile these broken relations highlights the significance of this research in scaling down reconciliation (see Glossary) to a local context, and scaling it out to reach more Canadians.

Following this logic, this thesis aims to explore Indigenous ways of knowing as a method to strengthen environmental education by focusing on values (see Glossary). Considering the mistreatment of Indigenous peoples in the past, reconciliation is not merely an option to consider, but a necessity to address through linkage to the objectives of such projects. This thesis uses the case study of a farm in Caledon to illustrate how Indigenous values and ways of knowing can enhance environmental education in an agricultural context. It also examines how this research can start to plant the seeds of new relationships as a part of reconciliation.

MWF Background

The Mount Wolfe Farm (MWF) in Caledon, Ontario, Canada has adopted a community supported agriculture (CSA) model to expand the local food movement in Southern Ontario. They aim to influence the next generation of farmers in the Oak Ridges Moraine (ORM) through an agricultural internship program using a land- and values-based curriculum that includes preserving the ecological integrity of the landscape. They would like to see increased support for urban agriculture and short food supply chains, thus the environmental footprint of food. They would also like to participate in the process of reconciliation at a local level. The issues of losing agricultural and traditional knowledge amongst youth are becoming more prevalent as we start to lose connection with the land and people within our communities. Indigenous ways of knowing and principles (see Glossary) form a type of education that help students retain values related to building social and ecological relationships. This study addresses how the farm can combine their interests to affect change more efficiently and effectively across a larger scale and at a fundamental epistemological level.

The MWF's Values

The MWF's mission is to create economical, environmental and social benefits for the farm, family and community (MWF, 2017). Their values parallel Indigenous understandings of the

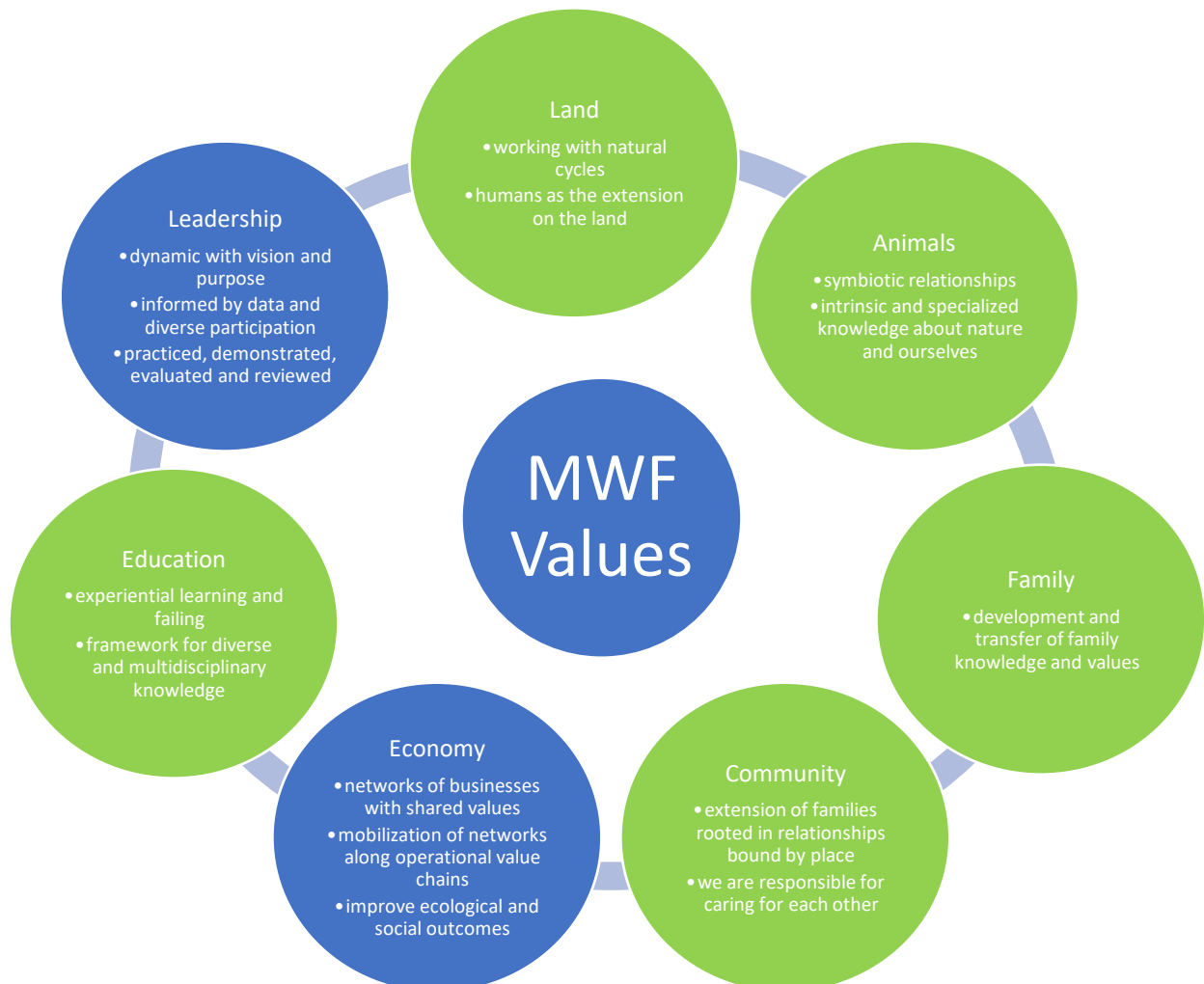


Figure 1 - The MWF's values and objectives aligned with Indigenous values. (Adapted from documentation received by the MWF)

land, animals and relationships, which permeate in the education of their youth. These are outlined in *Figure 1* with the green circles denoting alignment with Indigenous values. As a small-scale agri-business, the farm has limited capacity to strive to abide by these values individually, therefore, there is an opportunity to combine activities they are interested in to efficiently address multiple values. The research conducted in this thesis consolidates their objectives into the agricultural internship program.

Expanding their influence

The MWF would like to share their ecological farming methods and influence the food system by guiding interns to establish small-scale agri-business across the ORM. The MWF's ecological farming practices that work toward conserving biological diversity and serving the local community are the type of projects we require to influence the globalized food system (Orr, 1994). However, there is a lack of agricultural knowledge being passed to the next generation of young farmers, specifically on how to establish a farm and implement sustainable ecological practices (Toole, 2017). The MWF must consider the local social and ecological context of the farm location and develop an integrative curriculum that addresses this gap.

The CRAFT network, which is the Collaborative Regional Alliance for Farmer Training, was discussed as a vital platform for the MWF to join to gain access to interns for Toole's (2017) thesis. However, it could also be an opportunity for the MWF to expand their influence by sharing their knowledge and their framework, which is one of the outcomes of this thesis.

Reconciliation

The MWF would like to implement reconciliation actions in the long-term. Reconciliation in this context refers to support Indigenous communities to revive their culture, and understand their beliefs, values and culture. Since the MWF's values align with core Indigenous principles and teachings (*Figure 1*), there is an opportunity to merge the following objectives across the ORM: curriculum development, scaling the MWF model outward and promoting sustainable farming practices through land-based education. According to the literature, specifically the 17th volume of the *Canadian Journal of Environmental Education*, there is a shift occurring in environmental education to be more "Indigenized", which authors suggest is a new paradigm moving toward land-based education as a form of reconciliation (Korteweg & Russell, 2012).

Developing a curriculum that uses Indigenous principles to teach interns about ecological farming, as well as about Indigenous history and culture, will foster a stronger connection with the land and Indigenous peoples, which they can share in another location when starting their own farm. The MWF will play a crucial role in being an Indigenous ally through proactive engagement with the community and furthering progress in reconciliation (Ritchie, 2012). Their interest and openness alone in learning about the First Peoples of their land and welcoming them on the farm is a big step in reconciliation, which as seen in cases such as early childhood environmental education in New Zealand, will lead to an ecological land ethic in the form of pedagogical transformation (Ritchie, 2012).

Mississaugas of the New Credit First Nation (MNCFN)

The MWF is located on the land of the Mississaugas of the New Credit First Nations (MNCFN) of the Anishinaabe peoples. Refer to Button's (2017) thesis for more detailed background information. This thesis refers to the MNCFN as being participants in the study who would also be involved in the creation of the curriculum since it is their land (Kapryka & Dockstator, 2012). However, involving other Indigenous groups within the Anishinaabe would be appropriate as well due to capacity constraints of any single community, which will be discussed later.

Purpose and Research Objectives

A past undergraduate paper written by Sydney Toole (2017) discussed the viability of creating an agricultural internship, proposed a structure for such a program and made recommendations on internship logistics, curriculum components and reducing barriers for new farmers. Toole's (2017) research focuses on educating the next generation of farmers on starting their own small-scale farm in a manner that integrates the MWF's values. However, it does not address how interns can effectively understand the farm's ecological values nor does it make the connection with the social and ecological relationships necessary to transform the food system (Briggs & Moyo, 2012). These values are inherent in Indigenous cultures as they have been, since time immemorial, stewards of the land (Lowan-Trudeau, 2012). Furthermore, the MWF has indicated interest in reconciliation and building relationships with the MNCFN. Kendra Button's (2017) undergraduate thesis, researched how the MWF could scale down reconciliation from a government level discussion to local actions. She discussed the history of the MNCFN and the lack of information on reconciliation for small businesses (Button, 2017).

The objectives of Toole's (2017) and Button's (2017) theses complement each other as incorporating Indigenous, knowledge, ways of knowing and principles could shape the values of agriculture interns, which contributes to reconciliation. My thesis will focus on combining the two theses to propose how the agricultural internship could integrate Indigenous ways of knowing and teachings in the curriculum as a form of reconciliation, which can then be scaled out across the ORM as envisioned by the MWF. Concepts Button (2017) and Toole (2017) discuss in depth will not be reviewed here to reduce redundancy in the papers as they are meant to be complementary. The thesis on the MWF's strategic plan discusses broader plans that this thesis is a part of (Gerow, 2018).

The purpose of this study is to conduct grounded research to develop a framework that will inform users (the MWF) on how to bridge Western and Indigenous ways of knowing through land-based education. The aim is to determine the steps the Mount Wolfe Farm could take to implement the curriculum in an appropriate manner. This study also aims to create a replicable model that can be used at other farms to enhance their internship programs and scale-out reconciliation efforts as well as ecological farming practices.

The main question this study aims to answer is: Using the case study of the MWF, how can Indigenous ways of knowing be effectively interwoven with an agricultural internship curriculum for use on a small-scale agri-business as a step toward reconciliation? Additionally, how can this internship be scaled-out to other small-scale agri-businesses to affect change in local food systems?

Through primary research and secondary literature review, this study aims to make recommendations to the MWF on the components they should include in the internship program curriculum to realize their social and ecological objectives. An objective is also to outline the steps they need to take to expand their influence across the ORM. This paper starts with a statement of assumptions and bias followed by a brief overview of the literature about Western and Indigenous worldviews. The methods section outlines how I conducted this research, after which I present the relevant results of the study. Starting with the framework I created from literature analysis and participant responses, the discussion section explains the components of the curriculum, who needs to be involved, how it can be implemented and the implications for their business practices as a part of reconciliation. The paper concludes with specific recommendations for the MWF in the form of a timeline and general recommendations for small-scale agri-business.

Bias and Assumptions

Acknowledging my background is important to the interpretations of this research. It not only provides an indication of potential biases in this research, but is also a step toward reconciliation as I am recognizing my heritage and settler origins, which is later discussed in this paper. It also creates a connection with the reader to help them understand my perspective (Lowan-Trudeau, 2012).

I am a South Asian student at the age of twenty-two who has immigrated from India to Canada at the age of three. My biases and assumptions are not entirely based off Western thinking as I have my own cultural influences, which may have some overlap with Indigenous principles and values as I have discovered through this research. However, I have grown up in a Western society and been educated through the Western education system. I am currently finishing my undergraduate degree in Environmental Studies at the University of Waterloo.

As this research is being conducted by and for non-Indigenous peoples, it may be misunderstood that the MWF is misappropriating Indigenous culture by adopting an Indigenous philosophy, such as abiding by their principles and values (Lowan-Trudeau, 2012). However, as Rice (2005) comments, generally Indigenous people believe in sharing their knowledge as it will develop positive reciprocal relationships between cultures required to work together for environmental protection. In fact, “elders believe if the teachings are restricted only to cultural members and the prophecies are true, then there is little hope for change in the world” (Rice, 2005, p.55). Therefore, the assumption that Indigenous principles are being appropriated when incorporating them in western-style education is counter-productive to working toward sustainability. The farm does not intend to misappropriate nor adopt Indigenous culture as their own, but to explore the possibilities for collaboration.

Furthermore, Indigenous culture is often romanticized where Indigenous peoples are painted as peoples who are the best environmental stewards when that may not necessarily be the case due to contemporary Indigenous issues and a loss in traditional knowledge and culture (Beckford, 2010; McKeon, 2012). Therefore, we cannot expect to approach an Indigenous group and assume they will be able to foster such a relationship. This relationship will vary across the ORM depending on whose land the farm is on and the social context.

The MWF is not looking to breach their ceremonies and make them their own, but rather understand and practice their epistemologies. The intention for reaching out to Indigenous peoples today is not because they have superior knowledge that will solve the world's problems but to support the values and respect they hold for each other and the land that Western peoples have lost.

A major component of this paper is exploring knowledge and ways of knowing, which people may use interchangeably. The distinction is that ways of knowing focus on pedagogy whereas knowledge (see Glossary) is the content and information. Therefore, I use the term knowledge when demonstrating the differences between the Western and Indigenous systems and how they can work together. Ways of knowing will be most relevant when discussing curriculum delivery.

Button's (2017) thesis explored decolonization as being the first step to reconciliation, which for the MWF would mean to educate themselves on Indigenous issues and history. Decolonization and Indigenization must occur simultaneously in environmental education, but it is important to hear the truth and the pain behind the history of Indigenous people before reaching out to the community for collaboration on such initiatives (Korteweg & Russell, 2012). This paper assumes that the previous recommendations would have started to be implemented prior to applying the concepts, activities and recommendations of this paper.

The following section focuses on the literature surrounding environmental education, indigenous pedagogy and the use of Western and Indigenous ways of knowing in environmental education.

Western and Indigenous knowledge in the curriculum

Western environmental education

The current education students receive is based on science and objective truth that aims to disseminate knowledge in a reductionist, low-context manner and determine how the world works using the scientific method (Bartlett, Marshall & Marshall, 2012; Johnson et al., 2016). Western knowledge is often considered more legitimate than Indigenous knowledge as it is objective and universal for application in any context (Akena, 2012). However, there is a disconnect "between the observer and the observation" when using this quantitative approach, especially when research is conducted in silos or disciplines (Hatcher, Bartlett, Marshall & Marshall, 2009, p.142). A Western approach discounts cultural variation, which has reduced the resiliency of communities (Briggs & Moyo, 2012). Through this paper Western science, knowledge and ways of knowing denote the scientific method and use of inquiry based on objective evidence (see Glossary).

Environmental education follows this method as we try to decipher nature and study it to be able to develop mitigation strategies, monitoring programs and other initiatives that would contribute to human survival on this planet. It creates the illusion that humans are above nature and that it is knowable by attempting to eradicate uncertainty (Hatcher et al., 2009). It has also been used to oppress Indigenous peoples as Western knowledge was viewed as more legitimate, resulting in power imbalances favouring the Europeans (Akena, 2012).

In addition to problem framing, the solutions tend to focus on management, governance and adaptation rather than looking to responsibility, connection and meaning, which Indigenous peoples consider when finding a solution to a problem (Johnson et al., 2016). The Western worldview on its own is counterproductive to approaching environmental concerns, especially in a complex socio-ecological system with many injustices present such as the treatment of Indigenous peoples.

Indigenous worldviews

Indigenous paradigms differ from Western concepts in that they treat knowledge as a verb; it is a relationship to creation, contrasted with the idea of knowledge as an object that is obtained and owned (Kapryka & Dockstator, 2012; Hatcher et al., 2009). Indigenous sciences are holistic and include spiritual aspects, which makes it distinct from Western science as it is relational, high-context and based on experience (Johnson et al., 2016; Gorlewski, 2012).

The analogy that is drawn between family and environment is one that evokes an ecological ethos and provokes feelings of care and respect. Responsibility is a key component as one has certain responsibilities within their family, community and environment (Kapryka & Dockstator, 2012; Cajete, 2005). Not only does the Earth take care of us, but we have the responsibility to engage in reciprocal interaction and take care of it (Kapryka & Dockstator, 2012). “Care” in its literal sense can apply in an environmental and agricultural context by engaging in sustainable agricultural practices through taking only what is needed from the land. Knowing what is on the land is important to effectively care for it as we must listen and observe, rather than act without knowing the history (Kapryka & Dockstator, 2012).

Battiste, Bell, Findlay, Findlay and Henderson (2005), both Indigenous scholars, indicate the following as the structure of Indigenous ways of knowing:

- A) Knowledge of underlying, invisible powers in the ecosystem
- B) Knowledge of interconnections between everything
- C) Knowledge of perceived reality based on communication
- D) Knowledge that building relationships bonds people with others, communities and ecosystems
- E) Knowledge that teachings from tradition shape moral and ethics
- F) Knowledge that kinship to others passes traditions and practices to future generations.

Briggs and Moyo (2012) suggest that small-scale agriculture can be resilient through incorporating local knowledge that stem from Indigenous peoples, which would follow the structure outlined above.

In comparison to Western beliefs of monotheism, Indigenous peoples are polytheistic, leading to beliefs that everything is linked and has reciprocal relationships (Rice, 2005; Kapryka & Dockstator, 2012). As explained by Bartlett et al. (2012), the two knowledge systems align with the outermost circle of a series of four concentric circles: physical knowledge of beings. However, mainstream science does not acknowledge personal connection to, respect for and the sacred nature of beings, which is necessary for developing an environmental ethic (Bartlett et al., 2012; Hatcher, et al., 2009). Indigenous sciences focus on the journey rather than the destination

and most of the education is endogenous, meaning that learning is a transformational process and it stems from place and within oneself as we have all the knowledge we ever needed (Hatcher et al., 2009; Cajete & Pueblo, 2010; Cajete, 2005; Gorlewski, 2012). This view highly contrasts with Western science that is primarily driven by curiosity.

Nevertheless, Indigenous ways of knowing follow the scientific method as seen from the process of inquiry, observation and passing down of knowledge orally (Kulnieks et al., 2013a). Although on opposite ends of the spectrum of ways of knowing, they are similar in that they are different ways of explaining a universal truth (Kapryka & Dockstator, 2012). Therefore, as suggested by Kapryka and Dockstator (2012), the two should be presented as complementary.

Indigenous pedagogy fulfilling goals of environmental education

Kapryka and Dockstator (2012) argue that including Indigenous knowledge would enhance understanding of our environment in the context of a curriculum and prepare students, as well as instructors, to better address growing environmental concerns since “humanity for the most part is...divorced from the rest of Creation and this is what allows things to be destroyed because there is no respect” (MNCFN1, 2018). Therefore, “traditional Indian education is an expression of environmental education par excellence. It is an environmental education process that can have a profound meaning for the kind of modern education required to face the challenges of living in the world of the 21st century” (Cajete & Pueblo, 2010, p.1128). Kulnieks et al. (2013a) discuss the importance of using Indigenous ways of knowing in the context of food to better understand interconnections between environmental components and human health. Environmental education therefore, must be culturally relevant and grounded in place to better engage students, which can be done using Indigenous pedagogy (Sutherland & Swayze, 2012). The process of learning using Indigenous pedagogy is the focus of this research as they provide a more holistic view of the environment, rather than the acquisition of knowledge (Briggs & Moyo, 2012).

Considering the literature discussed thus far, this study is unique as it scales down efforts of reconciliation by incorporating Indigenous ways of knowing to educate the next generation about sustainable urban agriculture and the importance of local food systems. There has not been significant research on combining these two topics in this context, which will make this paper a valuable addition to the literature.

Addressing Reconciliation

Teaching and learning is a way to decolonize, as recommended by Button (2017). The farm can achieve this objective through the internship as it is also an opportunity for the staff to learn, not just the intern. The creation of this model is part of the decolonization practice as there is acknowledgement of the similarities and differences between the two ways of knowing in an engaging manner (Kapryka & Dockstator, 2012). As Cole (2012) suggests, we need more creative approaches to decolonization and Indigenization through alliances to substantially shift paradigms.

Additionally, revitalizing traditional knowledge amongst Indigenous communities is a step toward reconciliation that the MWF can help initiate through collaboration. The transfer of

knowledge across generations has declined because of the residential school system and cultural genocide. As explored in Button's (2017) thesis and prevalent in the literature, there were impacts on Indigenous identity, culture and spiritual connection to the land, which are core elements to Indigenous ways of being and have led to substance abuse (Marsh, Coholic, Cote-Meek & Najavits, 2015). A curriculum that includes both Western and Indigenous worldviews would help affected youth with healing as Marsh et al. (2015) discuss, especially through bridging the two ways of knowing. However, reconciliation must involve the Indigenous communities of the area and must be contextualized as discussed earlier (Kapryka & Dockstator, 2012).

Bridging Western and Indigenous ways of knowing

The two worldviews have their own positives but combining these two paradigms improves problem solving and understanding of issues compared to using only one knowledge system (Johnson, et al., 2016). It also demands collaboration between Indigenous and non-Indigenous peoples to motivate each other to leave the world a better place for future generations (Johnson et al., 2016; Bartlett et al., 2012; Lowan, 2012; Akena, 2012). Johnson et al. (2016) suggest bridging the knowledge systems instead of integrating them, which is why I have used this language throughout this paper. Integration connotes a power imbalance between the two knowledges where Indigenous knowledge would be fused into Western knowledge rather than seeing both as complementary (Johnson et al., 2016; Kapryka & Dockstator, 2012). They are merely two different types of knowledge that have different focuses and approaches to learning (Johnson et al., 2016). An example of bridging is the Indigenous Environmental Studies program at Trent University, which has been successful in forming a relationship between Western and Indigenous knowledge systems (Kulnieks et al., 2013b; Kapryka & Dockstator, 2012).

Participatory rural appraisal is a method used, originally in the agricultural context, to facilitate engagement with various disciplines, which has commonly been Western science and Indigenous knowledge (Johnson et al., 2016). The method that this study uses is participatory action research, furthered discussed in the methods section, which characterizes the bridging of the two systems (Johnson et al., 2016). The development of this curriculum will be in collaboration with Indigenous peoples and the MWF, which demonstrates triangulation of knowledge sources that Mueller, Assanou, Guimbo and Almedom (2009) describe as characteristic of participatory approaches. Bridging both ways of knowing will require such collaboration.

Systems approach

Systems theory uses multiple perspectives and various epistemologies to approach complex problems (Wright & Meadows, 2012). Viewing sustainability issues from a Western science perspective limits the types of solutions the farm can develop compared to when working in collaboration with indigenous knowledge (Johnson et al., 2016). The MWF has interest in taking a transdisciplinary approach to the curriculum so it encompasses not only biophysical aspects of farming, but the business knowledge required to run a farm, the political economy of food and community building.

Embedding systems theory in the education of the intern would also develop resiliency in both the farm as a hub for education and community, and in the community as a catalyst for change in

the region (Orr, 1994). Indigenous perspectives align with systems thinking as they consider holistic systems that have interconnected components, which has allowed them to survive for thousands of years (McKeon, 2012). For example, Kulnieks, Longboat and Young (2013b) provide an example of a scientist and an Indigenous person searching for frogs in the Amazon with Dr. David Suzuki. The scientist had extensive knowledge about frogs, but when asked about birds he responded, “ ‘I’m a herbotologist, you need to ask a ornothologist’ ” (Kulnieks et al., 2013b, p.15). On the other hand, the Indigenous colleague was able to describe the ecological function of both animals, their relationship to the land and each other.

The resiliency of the MWF’s model is critical to the success of the internship program as the intention is for the intern to carry forward these practices in other regions (Wright & Meadows, 2012; Kulnieks et al., 2013a). Although these practices may vary depending on the context, understanding relationships, networks and patterns amongst components are key to guiding change, which highlights the need to use a systems approach (McKeon, 2012).

This sort of pedagogy has been labelled as *métissage* in the literature, which is a play on the word *Métis* to imply “cultural mixing or the hybridization of identities” (Donald, 2009, p.7; Kapryka & Dockstator, 2012; Lowan-Trudeau, 2012). Although Indigenous cultural concepts are not transferable to be fully understood by the Western culture, we can make use of this concept to bridge the two worldviews.

Two-eyed Seeing as pedagogy

Using both Western and Indigenous perspectives helps fulfill the Western environmentalist agenda of protection and conservation but in a manner that recognizes humans as part of the environment, thereby engaging in a reciprocal relationship (Kapryka & Dockstator, 2012). The literature identifies this concept as two-eyed seeing. It is a way to provide a broader sense of understanding of the environment through an objective and subjective lens using both Western and Indigenous knowledge in a complementary fashion to foster co-learning (Kulnieks et al., 2013b; Kapryka and Dockstator; Bartlett et al., 2012; Hatcher et al., 2009). Bartlett et al. (2012) define it as being familiar with both knowledge systems to be able to combine them in different ways to accomplish a goal or challenge.

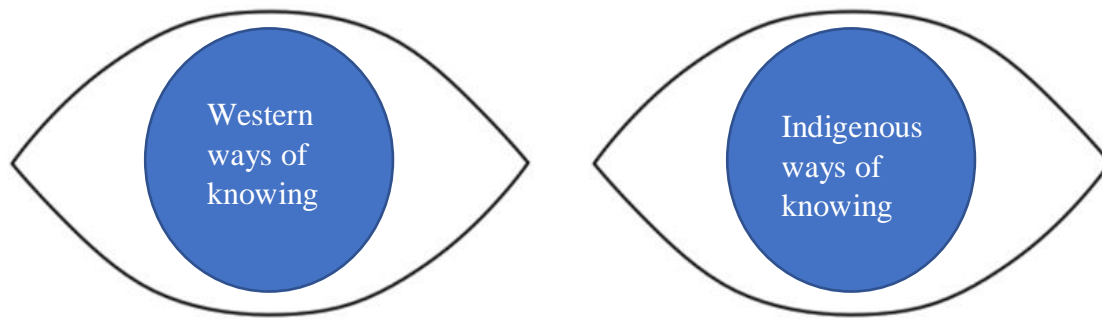


Figure 2 - Two-eyed seeing involves viewing knowledge from both Western and Indigenous perspectives simultaneously and weave them together

The combination of using the strengths of both ways of knowing, each representing one eye, to benefit all beings (*Figure 2*) creates an opportunity for collaboration and fosters mutual respects for the two cultures (Bartlett et al., 2012; Marsh et al., 2015; McKeon, 2012). This concept was introduced in the literature by Elder Albert Marshall from his engagement with Chief Charles Labrador of Acadia First Nation in Nova Scotia (Marsh et al., 2015). The Elder was able to heal from his experience in the residential school system by understanding both cultures and has used this pedagogy in Cape Breton University as a part of Integrative Science and co-learning (Marsh et al., 2015; Bartlett et al., 2012).

Two-eyed seeing demonstrates equity in both knowledge systems, which also contributes to the objectives of reconciliation as engagement with Western and Indigenous education unites the peoples and constitutes a new relationship (Kapryka & Dockstator, 2012). Furthermore, it is crucial to acknowledge the contrasting views, which Rice (2005) states is an important learning process within Indigenous culture. There must be a balance between views in a society to move toward sustainability as sustainability challenges involve all of humanity working together and learning from each other (Bartlett et al., 2012).

In this case study, weaving Indigenous principles with agricultural practices could strike that fine balance as the land is the common denominator for all peoples' existence (Rice, 2005). For example, hunting is a multidisciplinary skill that requires technical knowledge in making the bow and arrow aerodynamically optimal and tracking the movement of animals (Rice, 2005). On the other hand, these skills are deemed without value if there is no spiritual connection between the humans, animals and land (Rice, 2005). Students learn about nature through stories, practical life skills and cultural traditions, which the MWF can achieve by using both Indigenous and Western worldviews (Kulnieks et al., 2013b; Hatcher et al., 2009).

The literature lacks information on scaling out reconciliation and how an internship program can further the status of environmental education and reconciliation in tandem. The methods section outlines how I collected information to address this research gap.

Methods

Literature review

Peer-reviewed literature was used to understand the combined use of indigenous and western pedagogy and justify the approach of bridging the two knowledge systems (Bryman, Bell & Teevan, 2012). The keywords searched for this literature review were “environmental education”, “reconciliation”, “indigenous pedagogy” in different combinations. The literature review forms the basis of the background information and is used to support results from the interview in the discussion.

Participatory action research

Participatory action research is a useful transdisciplinary method that includes multiple perspectives (Pohl, 2011; Johnson et al., 2016). As Pohl (2011) suggests, such research is only useful when the researcher considers complexity, includes diverse perspectives, links abstract and case-specific knowledge, and develops the research project jointly to produce practical knowledge. These features help manage societal problems, which in this case are improving sustainable agriculture and working toward reconciliation. The perspectives from such collaboration through semi-structured interviews provide depth to the research and produce high quality outcomes that would satisfy participants involved in the process.

I used participatory action research as the methodology of developing the framework through semi-structured interviews. The nature of this research is community-based as the MWF has objectives they would like to fulfill through this program, which could only be addressed through obtaining qualitative information from relevant parties. Each interview had a list of guiding questions that addressed the objectives of the paper, which are referenced in Appendix A. When asking the questions, I deviated from the list depending on the responses, which led to other questions, therefore, the questions are not the same across the participants.

Four of the MWF owners and staff who are responsible for developing and delivering the curriculum were interviewed. To gain an external perspective, two experts on environmental health and equity and Indigenous studies with regards to food systems were interviewed. Additionally, an Elder from the MNCFN was interviewed. The last category of participants interviewed was CRAFT, the Collaborative Regional Alliance for Farmer Training. They help provide insight on the process to join their network and how the MWF could influence the local food system. Since CRAFT is a network, the responses from this participant was their own and do not necessarily reflect the opinions of all the members of the CRAFT network. Nevertheless, they are useful in gaining insight on how CRAFT operates.

Coding

The interviews were fully transcribed using Dragon speech to text software. The transcriptions were then uploaded to NVivo, which I used to auto-code themes from the interviews. I also reviewed each transcript to create additional nodes and code more themes that were relevant to the objectives of this paper, which Bryman et al. (2012) recommend for use in qualitative research methods. Since this research is based on what the farm and other informants envision the internship to include, themes were consolidated using nodes and in the cases with multiple

participants for each category, the themes most frequently mentioned across a majority of the participants were selected to be represented in the framework.

The MWF participants are coded as MWF# in the order they were interviewed. The Elder is referred to as MNCFN1 to indicate the ethnicity of the Elder. The experts were identified by expert1 and expert2 who were the experts in equity, and Indigenous studies with regards to food systems respectively. The participant that is a part of the CRAFT network is coded as CRAFT1 to distinguish the participant's opinion from the network's opinion.

I chose not to use a quantitative coding method because the discussion in the interviews revealed a values-based and priorities-based approach to making decisions regarding what needs to be included in the internship program and business practices. Components overlapping with the literature were given higher priority in being the focus of the internship program while other components were acknowledged and may not be part of the core recommendations. The literature and interviews were used to make recommendations for small-scale agri-business operations and the MWF to implement an agricultural internship curriculum.

The results from the literature were combined with the interview results to identify overlapping themes with references. These correlations were used to create a framework that is displayed in the discussion section, which elaborates on these connections regarding their significance for fulfilling the objectives of the farm and their implementation.

Results

This section outlines the results from the semi-structured interviews. The discussion section will support these responses with the literature.

MWF

All the MWF staff agreed upon the importance of using indigenous ways of knowing, traditional ecological knowledge and indigenous involvement in such a program to foster a connection with the land and community. All the staff mentioned they wanted the intern to appreciate their land and the food that it has to offer. They recognized the importance of building relationships to improve their business practices by adopting indigenous principles, for example, including a sense of humility in compensation. Furthermore, the MWF staff identified decision-making and farm operations as significant components to explore in the internship. Educating the intern on farm logistics and business administration was also discussed, which is briefly discussed in the next section.

The interviews revealed that the curriculum would ideally have a balance between outdoor and in-class learning. The in-class learning portion would cover courses on social sciences, such as political history and the modern food system, and technical aspects including soil, seeds and water. With regards to pedagogy, the MWF were interested in translating their values to the interns through exploring these topics. Methods such as using language and different modes of communication were mentioned as well as setting goals for the intern to reflect on their progress. Having an indigenous perspective was highly favoured because "it's not a matter of wanting it we need to have an indigenous perspective to help us produce the people that are going to disrupt

the system” (MWF4, 2018). A side-by-side approach was suggested by two out of the four staff to teach both Western and Indigenous knowledge and ways of knowing.

There was consensus on using Indigenous ways of knowing to translate the values they would like interns to develop from this opportunity, which include an ecological land ethic. There was also emphasis on building relationships with the indigenous community, and sharing of knowledge and experiences. Another significant component for the MWF was the teaching of business management in a CSA and how to improve decision-making to deviate away from the conventional Western, hierarchical chain.

Experts

The experts on equity and Indigenous studies with regards to food systems provided different views on reconciliation and using Indigenous ways of knowing, which are useful in informing the curriculum and operations of the MWF. They both mentioned recognizing the history of the land as well as developing relationships with the Indigenous community. Another theme that was mentioned in both interviews was creating a safe space to support participating youth, both Indigenous and non-Indigenous, when undergoing the decolonization process.

The expert on environmental health and equity focused on the distribution of power and decision-making ability to dictate curriculum development. Decisions and power regarding the curriculum. They also emphasized empowerment of the Indigenous community in taking leadership roles, especially concerning Indigenous youth. Compassion was a central value that the expert mentioned they would like to see the intern take away from this opportunity.

The expert on Indigenous food systems heavily emphasized relationships with the land and the Indigenous communities. They spoke of the significance of language and ceremony in helping to connect with the land and the goal of decision-making being to sustain all of life. The expert also mentioned the medicine wheel as an appropriate framework for the pedagogy used to deliver the curriculum. The values that the expert would like the intern to take away is that food is sacred and that all relationships are reciprocal. Also, to make this process more authentic, the suggestion was for the MWF to return to their own indigeneity and look to their own cultures as we are all connected by the earth.

MNCFN

The Elder that I interviewed provided insight on the components the internship program should include and what the intern should be learning. History and the land were prominent themes that guided the conversation in terms of Canada’s history of colonization and having a spiritual connection with the land. Community was also emphasized as a key way to move forward in reconciliation, both with Indigenous and non-Indigenous peoples. The Elder spoke of the commercialization of resources and industrialization being closely related to colonization of the people and the land, therefore, the MWF should try to introduce activities that reflect the old way of doing things. These activities would include planting traditional crops, processing them in a traditional manner and sharing these resources with others through workshops. They also spoke about the scale of agriculture and the replicability of sustainable initiatives, “so we can reverse

[unsustainability] by making a whole bunch of these farms one grain at a time” (MNCFN1, 2018).

CRAFT

The last piece of this paper was to examine replicability and how the MWF could influence the wider food system by preparing future farmers to operate in a sustainable and equitable manner. This interview revealed the process the MWF would have to take to be a part of the CRAFT network as well as the requirements of a member farm. The participant also spoke of the characteristics of current member farms and expressed interest in the topic of reconciliation and relationship building with Indigenous peoples as being a part of the CRAFT network. They also described a typical CRAFT day and how the MWF could benefit from being a part of this network, mainly through advertising and connecting with other like-minded farms. The participant also mentioned farming techniques other farms are using such as biodynamics and permaculture.

Overall, most participants referred to literature that could be used to educate the MWF regarding certain topics such as:

- *The Gift is in the Making* by Leanne Simpson
- *The Market Gardener* by Jean-Martin Fortier
- Deep ecology literature

The following table displays the themes that were discovered from the semi-structured interviews. Appendix A displays the most frequently used words from the MWF, MNCFN and expert interviews based on the auto-coding results. CRAFT was not included as the interview was primarily about the process of joining the network rather than the development of a framework for the curriculum.

Table 1 - Summary of key themes from the interviews

Themes	MWF	Experts	MNCFN	CRAFT
LAND	X	X	X	X
Ecological land ethic	X	X		
Reciprocity	X	X	X	
Place attachment	X			
ONESELF				
Principles and values	X	X		
Responsibility	X	X		
Attitude	X	X		
Identity		X		
OTHERS	X	X	X	X
Systems	X		X	
Political movement	X		X	
Influence	X		X	x
History	X	X	X	
Farms	X			X
CRAFT	X			X
Knowledge exchange	X	X		
Community	X	X	X	X
Culture	X	X		
Network	X			X
Workshops	X		X	X
Biases		X		
Language	X	X		
Indigenous	X	X	X	
Reciprocal relationship	X	X	X	
Equity	X	X		
Youth leadership	X	X		
MWF	X	X		X
Post-internship connection	X			
Heritage	X	X		
CSA	X	X		X
Business practices	X	X		X
Governance and decision-making	X	X		
CSA model	X	X		X
Operations	X	X		X
Management and planning	X			
Curriculum	X	X		X
Staff	X	X		
Hiring and compensation	X	X		
Equity in labour	X			
RECONCILIATION	X	X	X	
Equity	X	X		
Youth	X	X		
Tokenism	X	X	X	

The interview results were cross-referenced with the literature to produce the following framework for the MWF to use to guide their curriculum:

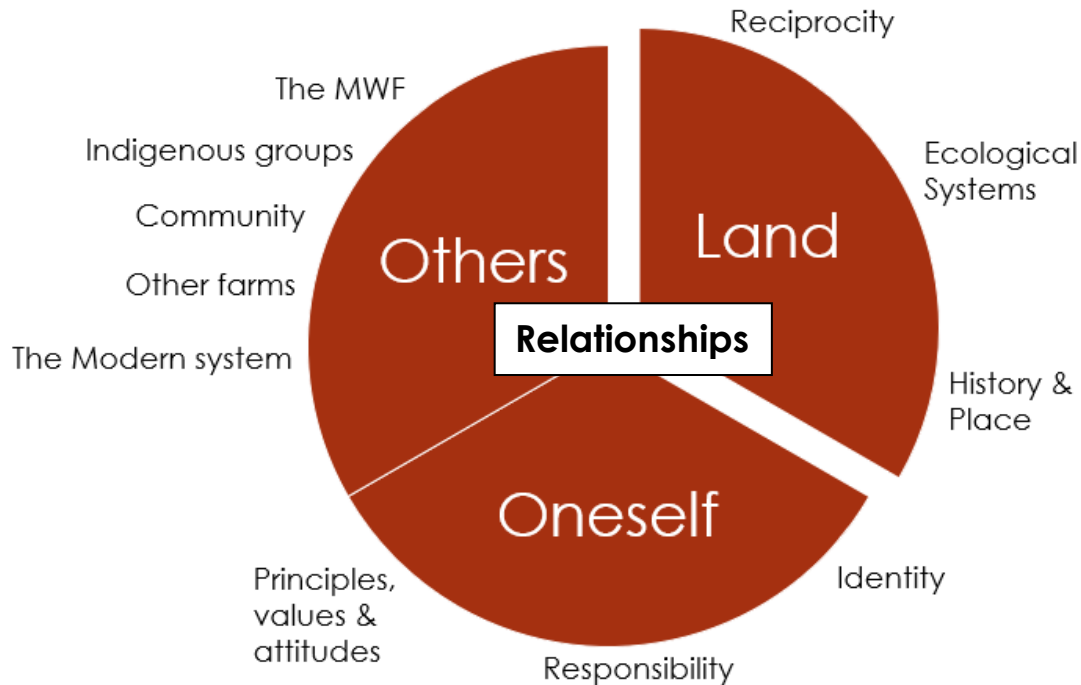


Figure 3 - Framework for an agricultural internship program based on Western and Indigenous ways of knowing.

The following section elaborates on this framework with the support of interview responses and literature.

Discussion

There are many intersections of themes and topics from the interviews that address the objectives of this paper. From the results it appears that these objectives are interconnected as many themes regarding reconciliation were tied to the land and the community, which is the focus of the CSA program. They also align with the components the farm would like to pass on to the intern to implement at their future farm.

FRAMEWORK: Relationships

The keyword that sums the literature and interview results is relationships. This theme splits into three pieces: the land, oneself and others. These components interconnect to form a holistic view of the environment according to the MWF's, Elder's and expert's views. The MWF needs to address these components together in the curriculum through Indigenous pedagogy such as two-eyed seeing. Environmental education needs to go beyond routine pedagogy to shift the status quo and foster relationships to engage in issues affecting all beings to most effectively influence the broader food system (Kulnieks et al., 2013a). By adopting this model, the MWF can be a

platform that facilitates connections between people and the land to regain land intelligence and understanding of farming in a social context (Orr, 1994).

Land

Learning about the history of the land and the place in which the farm is located is a key component of land-based learning as we can preserve the ecological value of places and remember their significance (MNCFN1, 2018; MWF2, 2018). The physical history of the land, our spiritual connection to it and the land's political history are important components of this framework as they instruct us in the "realities of nature" and help us realize responsibilities as a treaty person (MNCFN1, 2018; Orr, 1994, p.175; MWF4, 2018; expert2, 2018). Respecting the land forms a reciprocal relationship allowing it to sustain the life of many beings simultaneously and "work in conjunction with the land in a fundamentally different way, and that's when you can start to introduce different ways of being with the land" (expert2, 2018).

Components should also include the soil and water as the land is within the ORM, which is a significant landform maintaining the health of the Greater Toronto region through critical ecological functions (Government of Ontario, 2017). Connecting to the significance of this resource and its interconnected components is essential to understanding the land and to avoid making the same mistakes (MWF4, 2018; MNCFN1, 2018; Kulnieks et al., 2013a). These results reflect a systems approach where the intern would learn about not only growing the food, but also the entire ecosystem it is a part of.

Our relationships with plant and animal beings help us understand how to sustain ourselves and future generations by understanding their functions within a broader socio-ecological system (Kulnieks et al., 2013a; expert2, 2018). These environmental components sustain us and so learning about them and their role in the system is important to include in the curriculum since the intern as a potential farmer has a responsibility to providing this food (Kulnieks et al., 2013a; Cajete, 2005). The Elder mentioned some components the farm could include to better engage with the land, such as planting native species and traditionally significant foods (e.g. corn and strawberries) (MNCFN1, 2018). Processing this food in a traditional manner is another way to make the human connection with the land and the peoples who survived off it (MNCFN1, 2018).

Connecting back to two-eyed seeing and thinking in systems, the MWF could also integrate concepts of property and ownership (Orr, 1994). Starting a farm would be expensive and requires one to place a dollar value on the land to purchase it, returning to the idea of private property, which contradicts with Indigenous worldviews of the land. Recognizing the embedded structures relating to land and its commodification is also a critical component that would contribute to the intern's understanding of the political history. Acknowledging how the landscape has changed as well as our relationship with it because of privatization becomes important to better engage with Indigenous worldviews.

Oneself

Building a relationship with the land allows the intern to learn about themselves and their roles and responsibilities in the environment (Cajete, 2005; expert2, 2018; Galt, 2012; Madden, 2015). There is an emotional aspect to this learning as it creates place attachment and helps develop a

connection to the land that forms one's identity (Kudryastev, Stedman & Krasny, 2012; Cajete, 2005). Cajete's (2005) seven foundations of tribal education includes spirituality, which often shape one's values and attitudes as well as identity with regards to their heritage and culture (expert2, 2018). Participants Expert2, MWF3 and MWF4 also discussed the importance of connecting with their heritage, as we are all indigenous to somewhere, and others' cultures as a part of reconciliation and relationship building. Looking back at the land we are all originally from would provide more authenticity and personal connection to Indigenous values through telling those stories.

It is also important to have positive thoughts while working in the garden as it influences energetics of the plants, demonstrating a link between one's attitudes and other beings (expert2, 2018). To transform the food system, we need to transform ourselves and using Indigenous ways of knowing and pedagogy can help us connect more with ourselves to better understand and care for the land (Cajete & Pueblo, 2010; McKeon, 2012).

Others

This component is quite intensive as it encompasses many layers of society. Socio-cultural conditions highly influence food production, therefore, emphasizing the need to meaningfully engage with others before and during the implementation of such programs (Briggs & Moyo, 2012). Forming a hierarchy with regards to scale, the intern needs to form relationships with others starting with the farm and its staff, the Indigenous group the farm is working with, the local community and the MWF's network, other farms through the CRAFT network, and the Modern system (expert2, 2018; MWF4, 2018; Cajete, 2005; MWF1, 2018).

The Modern system refers to the role the intern plays in the food system and taking a systems approach to how they can influence change within the existing system through innovation, as Toole's (2017) thesis discusses (MWF4, 2018). Understanding the political economy reveals the gaps in the system that the intern can address at a local level, "and what needs to be fixed... because once [they] have that worldview, then everything else just starts to make sense in a way that allows [them] to change the system" (MWF4, 2018). Using Indigenous worldviews, such as forming a relationship with the land, is the foundational element to facilitate this change.

The MWF is part of a broader movement toward local initiatives such as CSA farms, which have recently convened to create the CRAFT network (MWF1, 2018). According to the participant CRAFT1, the MWF could influence other farms to think broader about social and environmental issues connected to their farm, which would further the goals of the MWF (CRAFT1, 2018; MWF1, 2018). This network is also an avenue for the MWF to determine how they would like to structure their internship program based on the curriculum of other farms such as Everdale. It can also lead to other farms adopting this framework, which would efficiently and effectively scale out reconciliation.

The way to build relationships with the community could be through teaching and workshops led by experts in food systems, soil, water, traditional preserves or systems thinking (MWF4, 2018; MNCFN1, 2018). As recommended by the Elder, people from the reserve with certain skill sets could visit the farm and exchange their knowledge for monetary compensation, "if [the MWF]

can afford to pay them... and if [not] then [they can] feed them in vegetables and eggs and chicken if they eat meat” (MWF4, 2018). Sharing of food is also a component of reconciliation as it demonstrates the act of giving back through a reciprocal relationship, which treaties failed to fulfill (MNCFN1, 2018; expert2, 2018).

Building a relationship with others also includes critically engaging with Indigenous peoples. Donald (2009) argues that any curriculum or pedagogy must address decolonization and the wider system and to be always thinking and acting with reference to our relations because we share this world with them. Expert1 also mentioned learning about the historical context of colonization of Indigenous communities and the land and how that ties with food on the farm. The Indigenous group that should be first consulted are the Mississaugas of the New Credit First Nation as they have historic knowledge of the land and can appropriately inform the intern. Since the MNCFN were not traditionally agriculturalists, the MWF should consider connecting with the Haudenosaunee who can provide agricultural knowledge (MWF1, 2018; MNCFN1, 2018). Another local Indigenous group that the MWF can reach out to is Curve Lake, as mentioned by participant MWF4, to include a diversity of Indigenous cultures and perspectives. Inviting representatives from these communities to lead workshops both in the classroom and field, such as corn husking and snowshoe crafting, would enhance the practicality of the internship that explores sustainable methods to farm and operate within a farm in a manner that fits with the agenda of reconciliation (MNCFN1, 2018; MWF4, 2018).

Connecting with the staff working at the MWF is critical in helping the intern establish these relations. Developing essential teamwork skills and sharing experiences with the staff is a necessary component of coming back to understand the broader purpose of the farm as staff can be distracted by the daily operations of the farm (MWF4, 2018; MWF2, 2018). The focus on short-term profits to earn a living wage can deteriorate the relationships being built with oneself and each other on the farm as “everybody is in a hurry and that’s part of engaging with the environment, it’s not to be in a hurry” (MNCFN1, 2018). Therefore, it is important to demonstrate to the intern the significance of daily relationships with those working closest to us (MWF2, 2018). Developing these personal connections will encourage them to appreciate the beings in their life and extend this appreciation to the work they would be doing elsewhere in the future.

The MWF needs to present itself as a hub for community building where people can gather around the fire and share stories, both good and bad, to form community bonds and help each other out, which Indigenous peoples highly value (MNCFN1, 2018). In addition to Indigenous cultures, a celebration of various cultures in the community is important. It helps to build relationships, tell the story of the land and understand the colonialist system that has led to many of the environmental issues we face today. It demonstrates the diversity of our land now and how food has travelled with culture, which has changed the items we plant and how we plant them (expert2, 2018).

These three components need to work together in order to affect change. Spending time with the land and Indigenous educators would help the intern connect with their identity and heritage in relation to the land. It is “important to get people to...be present in the environment they are

working in and establish a connection with that environment” as “through that kind of observation and connection...people are able to have...subsequent discussions about how to appropriately use that land” (MWF1, 2018). Developing self-awareness would enable relationship building with others and lead to broader discussions about sustainable land use.

Pedagogy for curriculum delivery

The conceptual framework outlining the learning outcomes for the intern at the MWF speaks to the pedagogical frameworks discussed in the literature. From analyzing the interviews, the focus should be on two-eyed seeing, or rather multiple-eyed seeing, especially in the context of reconciliation (Bartlett et al., 2012). There is an interest in learning about diverse cultures and building relationships with the community, which would involve multiple “eyes” or lenses, making this program more inclusive and relevant to reconciliation. The farm is a central place for in reviving Indigenous ways of knowing and fostering a better understanding between Indigenous and non-Indigenous peoples (Scully, 2012).

The MWF staff’s interests in learning more about surrounding cultures and their interactions with the land and food, as well as the experts’ and Elder’s mention of avoiding cultural misappropriation, demonstrate the need for any type of small-scale reconciliation project to look toward their own communities first. Therefore, going beyond two-eyed seeing would reinforce key indigenous principles at a higher level and foster healthier communities, which is an underlying goal of the MWF (Bartlett et al., 2012).

Two-eyed seeing with Western and Indigenous ways of knowing involves building a knowledge base prior to abstract learning, which is more reflective of Indigenous ways of knowing as discussed by Kolb (1984) in the experiential learning cycle. In-class instruction followed by in-field discussions would demonstrate both Western and Indigenous ways of gaining knowledge. It would also provide an opportunity to relate class content to the field (MWF1, 2018; MWF4, 2018). For example, teaching the intern about seeds and planting cycles according to the seasons would be Western-based knowledge. Then aligning this technique with principles of biodynamics and permaculture would reflect ecological principles that align with Indigenous knowledge of planting with the moon cycles (MWF2, 2018; CRAFT1, 2018; MWF3, 2018; MWF4, 2018). Biodynamics was mentioned by participants CRAFT1, expert2 and MWF4, which includes using ecological systems-based principles and the spiritual connection with beings (Kutschera, 2016).

This side-by-side comparison allows the intern to understand how scientific methods and Indigenous ways of knowing work together to maintain the ecological integrity of the land through in-class instruction and practical application in the field. It would also help develop relationships as understanding the life histories of the plants and the seeds would facilitate a connection with the land, which in turn supports relationship building with oneself and others.

Although using tractors and other modern farm equipment is not necessarily a part of Indigenous practices, the intern must learn these skills as they are an essential component of farm operations to be able to earn a living (MWF4, 2018; MWF3, 2018). Using the MWF’s network to teach such skills to the intern would allow them to build relationships with others and contribute to

reconciliation. Furthermore, considering the holistic nature of Indigenous sciences, the MWF could teach the ecological components with other content such as art and other subjects through workshops led by people within the community and the farm’s network (Hatcher et al., 2009). The MWF staff’s interest in including Indigenous mythology and crafts corroborates with the Elder’s suggestion of including arts in the curriculum to support Indigenous communities while teaching the intern traditional practices and providing them a way to express themselves (MWF1, 2018; MNCFN1, 2018; MWF4, 2018). It also supports the Indigenous community through compensation.

Using two-eyed seeing encourages the MWF to explore different world views, which can initiate the process of decolonization because they would have to understand the history of the land first to build stronger relationships (Bartlett et al., 2012; Kapryka & Dockstator, 2012). As suggested by Marsh et al. (2015), Hatcher et al. (2009), and expert2, the MWF could use the medicine wheel (Figure 4), and Anishinaabe framework for Indigenous education, for the Indigenous component of two-eyed seeing, or as Rice (2005) frames it: the four directions (Bell, 2014). It is a way for the intern to connect all aspects of their learning through their heart, spirit and mind with garden seasons as seen in biodynamics because science is essentially a social construction (expert2, 2018; Lowan, 2012; McKeon, 2012). Engaging with the Indigenous community to teach using the medicine wheel would be most appropriate as the MWF staff are non-Indigenous and may misinterpret the teachings. The literature suggests many pedagogical elements, however, input from the Indigenous community would contextualize the pedagogy and curriculum content. Some knowledge of pedagogy may be missing due to the loss of knowledge from the residential school system, therefore, it must be a collective process.

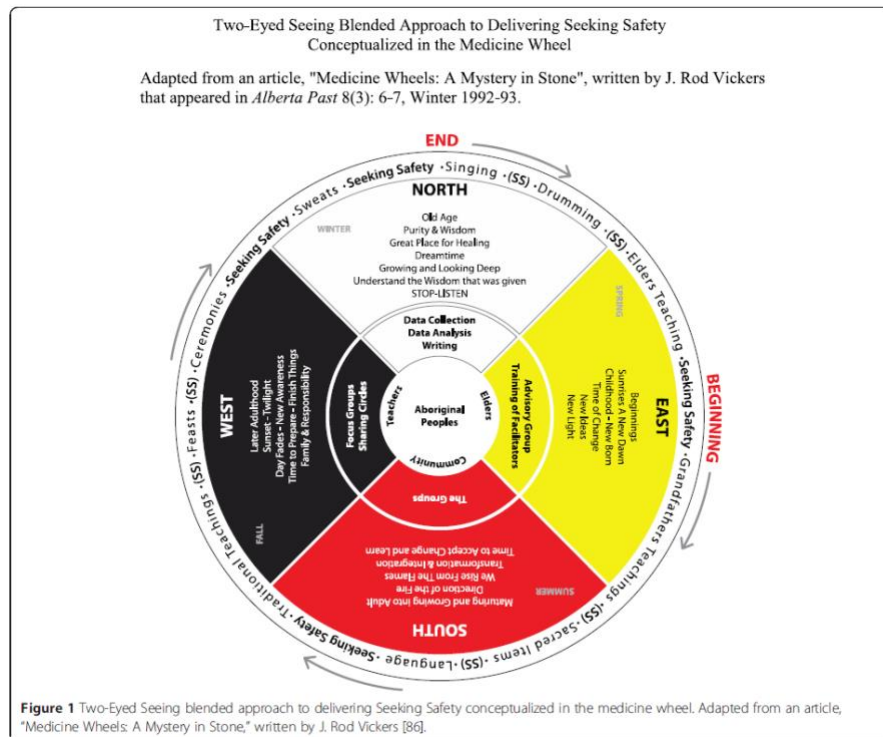


Figure 4 - Two-eyed seeing and the medicine wheel (Bell, 2014)

Nevertheless, the MWF can incorporate literature that educates the intern on such topics as many authors argue ecological literacy being the goal of education (Sutherland & Swayze, 2012). The interviews also indicate literacy as being significant in learning about ecological farming practices such as biodynamics and sustainable agriculture in addition to incorporating Indigenous views (CRAFT1, 2018; expert2, 2018; MWF1, 2018). Being literate about these topics would provide a more holistic learning experience for the intern and expose them to different perspectives.

Both the interviews and literature reveal that stories and language effectively translate knowledge and values to the intern (Kulnieks et al., 2013b; Kapryka & Dockstator, 2012; Cajete, 2015). Kulnieks et al. (2013b) emphasize these methods as a key way to corroborate the ecological importance of certain foods, its role in a healthy diet and most importantly the role it plays in sustaining life (expert2, 2018; MNCFN1, 2018). The goals of the MWF align with the role that storytelling plays in treating foods as characters that form a part of the “story” and tell us about the function of the foods and the cyclical nature of foods and diet to enrich environmental education (Kulnieks et al., 2013a; McKeon, 2012). Stories pass down the living knowledge of the people of the land to the next generation and explain the nature of reality, which would help the intern farm more sustainably and work with nature as done in the past, not against it (Bastien, 2003; Kulnieks et al., 2013a). Stories are also an essential part of sharing experiences and information in a more engaging thus effective manner, which facilitates relationship building and contributes to reconciliation through the process of giving and taking (MWF3, 2018; MNCFN1, 2018). These methods together are effective in creating a safe space where these activities and discussion can happen both in the curriculum and physically on the land.

Who

Helping each other and knowledge sharing, is a significant component to the delivery of the curriculum, as was also done in the case study presented in the paper by Bartlett et al. (2012). To abide by indigenous ways of knowing, collective knowledge should be used to facilitate the delivery as Bartlett et al. (2012) indicates traditional knowledge is collective knowledge. It is important to recognize that not everyone knows everything, but the things that we need to know can be learned from others, which was also emphasized from MWF staff and the Elder (MWF4, 2018; MNCFN1, 2018).

Alongside Indigenous perspectives, the MWF is running a for-profit CSA model that requires other skill sets such as fixing tractors to traverse the fields, which all the MWF staff discussed is an essential part of farm operations. Having people with these skill sets teach such knowledge would foster relationships with the community. Indigenous craft can also address the practical aspects of the internship such as making snowshoes to walk in the winter, as suggested by participant MNCFN1. Including members from Indigenous communities to be a part of such initiatives is essential to appropriately include Indigenous perspectives in a manner that benefits

them (MWF3, 2018; MWF1, 2018; Lowan-Trudeau, 2012). A way to connect with these communities is through networks such as the Peel Aboriginal Network¹.

Indigenous knowledge and teachings need to be supported by the presence of an Elder, which almost all the literature on Indigenous pedagogy mention, including expert1 (2018). However, the interviews revealed that the Elders do not necessarily have to be Indigenous peoples to reflect genuine participation in reconciliation, rather we could look toward the elders in the community to share their knowledge and experiences (MWF2, 2018; expert2, 2018; MWF4, 2018). There are numerous cultures South of Caledon extending into the Region of Peel, which would be valuable to engage with as a part of understanding the wider community and drawing upon the knowledge of elders in those cultures. Therefore, reconciliation at the local level, once past the decolonization stage, becomes more about embedding the practices of Indigenous cultures, such as listening to Elders, sharing food with others and engaging with the wider community, in any initiative (Sutherland & Swayze, 2012).

As previously discussed, CRAFT plays a larger role in allowing the MWF to expand their influence and educate others on reconciliation in the agricultural context. The interview with participant CRAFT1 indicated interest in the type of curriculum the MWF plans to implement. Additionally, the interview revealed the process that the MWF would have to undergo to be a part of the network:

- 1) Connect with a farm in CRAFT to be sponsored into the network
- 2) Pilot an intern to gain experience in holding internships during the summer
- 3) Fill in an application by the biannual meeting in November
- 4) The first year the farm will not host interns
- 5) Send intern to CRAFT days that involve workshops, education, a work project for the interns and hosting a potluck.

The MWF should connect with the CRAFT network through a farm that could sponsor them by perusing profiles of the farms on the website². According to the interview, potential farms could be: Fiddle Foot Farm that incorporates biodynamics, and Manoran that has implemented permaculture practices.

Social and Transformative Learning

The knowledge being gained through this internship program would be facilitated through social learning. The MWF staff indicated they would be open to learning from the intern as well with whatever knowledge they have to offer (MWF2, 2018). With the objectives of participating in reconciliation, social learning becomes a key component as Indigenous groups use oral teachings for intergenerational transmission of knowledge. It is a form of building relationships with others as “it’s endless what you can learn from each other and that’s the whole thing, learning from each other” (Barlett, 2012; Kulnieks et al., 2013b; Cajete & Pueblo, 2010; Ritchie, 2012; MWF3, 2018).

¹ <http://www.peelaboriginalnetwork.com/PAN/Home.html>

² <http://craftsouthwestontario.ca/>

Creating programs that bring together various peoples to offer their unique perspective and contribute the interns education fosters a sense of collective stewardship and compassion, which is essential in bridging the two ways of knowing and fulfilling the objectives of the farm (Barlett, 2012; Cajete & Pueblo, 2010; expert1, 2018; Kulnieks et al., 2013a). Relationships are a prerequisite for effective learning, which follows the practice of Indigenous ways of knowing as it encompasses the structure Battiste et al. (2005) outline (Hatcher et al., 2009).

Additionally, this type of learning would address reconciliation by recognizing unequal power relationships and the role of the intern in creating knowledge, which is a form of reconciliation with participation of Indigenous peoples as it reinforces passing on of knowledge (Hatcher et al., 2009). The residential school system attempted to eliminate such knowledge co-creation and bringing that way of learning back adheres to Indigenous ways of knowing and fulfill reconciliation objectives (Hatcher et al., 2009).

Learning from the farm staff forms the foundation of this internship and so Hatcher et al. (2009) and Kapryka and Dockstator (2012) recommend forming learning circles for teaching and decision-making as well as healing, which the interviews with participant MWF4 and expert2 revealed as well. Indigenous cultures highly value circles as they represent aspects of the Earth and Creation and are a way to connect with oneself and others (Hatcher et al., 2009; Marsh et al., 2015). Using these methods to evaluate progress by self-reflecting would also be helpful to determine the effectiveness of this curriculum, which is also a part of Kolb's (1984) experiential learning cycle.

Self-guided learning is also an important part of social learning as the farm would also like to learn from the intern (MWF3, 2018). As a part of the internship, it may be valuable, as expert2 (2018) and Kulnieks et al. (2013a) recommend, for the intern to choose a set of foods and understand their entire ecology from the nutrients it requires to the connection to human health. Furthermore, creating a meal out of these foods and sharing their research, or rather "story", about these foods not only fulfills relationship building with the land through reciprocity but also with the MWF, community and Indigenous peoples (Kulnieks et al., 2013a). This activity is one of the many ways in which the intern can learn from nature through a reciprocal relationship.

Furthermore, social learning facilitates two-eyed seeing as this pedagogy involves researching the science behind growing the plants, which reflects the Western component, and then using observation and values to question if farming practices sustain all of life, which is the Indigenous component (Cajete, 2005; expert2, 2018). It is about how we choose to apply the science in an ethical manner that sustains life (expert2, 2018).

Reconciliation

An agriculture internship curriculum is an appropriate context to prevent the prophecy of the Eighth Fire stemming from Anishinaabe culture that prophesizes destruction unless there is new peace and friendship between Indigenous peoples and Canadians (Korteweg & Russell, 2012; Rice, 2005; expert2, 2018). The first step in reconciliation is extending an invitation to Indigenous communities and having an exchange of benefits rather than assuming they will give their knowledge to the MWF (MWF1, 2018; expert2, 2018). All relationships are reciprocal and

so there must be an exchange, which “needs to happen in sort of a context like this where you are actually working together,” (expert1,2018) such as food grown on the farm (MWF1, 2018; expert2, 2018). These arrangements could be agreed upon after engaging with the Indigenous community, which should be done according to the community’s protocol (expert2, 2018).

Colonization for the purposes of conventional agriculture has taken viable land Indigenous peoples used for survival, therefore, the MWF’s practices may seem antithetical to reviving Indigenous culture as “agriculture, specifically European-style agriculture, is partly responsible for the loss of Indigenous ways of knowing” (MWF1, 2018). However, although the farm may not be able to return the land as suggested in Button’s (2017) thesis, even if “all they can give is education, that would still be a great thing [to give as a part of reconciliation]” (MNCFN1, 2018). Using two-eyed seeing places both systems on an equal level and so using this concept would not only enhance the sustainability objectives of the farm, but also blend reconciliation into the curriculum as it bridges the two knowledges and revives lost traditional knowledge (Johnson et al., 2016).

Such a curriculum could also approach reconciliation through healing youth that may be suffering from intergenerational trauma and substance abuse (Marsh et al., 2015). Non-Indigenous peoples at the MWF would also be able to heal their relationship with the land that provides sacred food through Indigenous ceremonies and connecting with their spirituality (expert2, 2018).

Framing the curriculum around relationships reinforces traditional values in a manner that maintains the indigenous community’s way of life that is currently in decline (Cajete & Pueblo, 2010). Including the Indigenous community by hearing their perspectives and including them in decision-making reduces the power differentials between Western and Indigenous society as it allows Indigenous peoples to participate in food sovereignty, which according to Grey and Patel (2015) and expert2 (2018) is a part of decolonization (MWF4, 2018; expert1, 2018). Despite being a government mandate, the MWF can demonstrate that “reconciliation has to come from the Canadian people” by “engag[ing] in the Indigenous community mak[ing] relationships work together, that’s reconciliation” (MNCFN1, 2018). Building that reciprocal relationship with the community will help both Indigenous and non-Indigenous peoples as the MWF can offer: foods, cultural revivification, education and compensation while receiving guidance on: how to integrate teachings, language, ceremony and ecological education in the curriculum (expert2, 2018). This process reflects a re-balancing of structural power and producing an equitable program by taking a systems approach (Brisbois & de Loe, 2016). The MWF’s role as allies will facilitate a larger movement to prevent the Eighth Fire by providing more opportunities for Indigenous peoples (Korteweg & Russell, 2012).

Equity

The MWF should co-create the curriculum with the Indigenous group involved to make this program more equitable. Program development should be led by an Indigenous perspective first rather than how Indigenous ways of knowing can serve Western standards and expectations to avoid the perpetuation of colonial attitudes (Lowan, 2012; expert1, 2018). Participant MWF4 also agreed on including Indigenous input on operations, but to make such a collaboration more

equitable, decisions about the content and pedagogy should be lead by the Indigenous group (expert1, 2018). Masuda, Zupancic, Crighton, Muhajarine and Phipps (2014) suggest using equity-focused knowledge translation as a framework for collaborative initiatives to ensure all perspectives are equally recognized and to minimize power imbalances (Appendix C). This framework would be helpful for the MWF to refer to when collaborating with Indigenous communities.

Indigenous Youth

Involving youth is essential as the worldview of Indigenous peoples looks forward to seven generations (Bartlett et al., 2012). Passing down cultural knowledge and Indigenous principles would engage future leaders in stewardship and relationship building to halt the perpetuation of destructive Western values (Wilder, O'Meara, Monti & Nabhan, 2016). Current education disempowers Indigenous youth due to culturally irrelevant conceptions of knowledge that resonate with the impact of residential schools (Gorlewski, 2012). As a part of this research, questions regarding youth involvement were asked and the interviews revealed that speaking to the Indigenous community about how to involve youth is the best approach. Also, barriers such as transportation could prevent them from participating (MNCFN1, 2018; expert1, 2018; expert2, 2018). However, finding funding that could facilitate Indigenous youth involvement could address this barrier to participation. It is a transformative opportunity for Indigenous youth to become leaders of their communities to reconnect to their identity (Gorlewski, 2012; expert1, 2018).

Additionally, learning about the land and colonial history may trigger emotions for both Indigenous and non-Indigenous peoples and so the presence of and Elder becomes crucial. Therefore, I would recommend the MWF to first speak to the Indigenous community's cultural and youth liaison to determine if involving their youth would be beneficial for them (MNCFN1, 2018; expert2, 2018).

Implications for business practices

Learning how Indigenous societies were governed and decisions were made could "facilitate a more helpful way of approaching things on the farm rather than the way that we conceive of making decision in a hierarchical decision chain," which was also supported by participant MWF4 and expert1 (MWF1, 2018). Decisions about the CSA in addition to the curriculum should be made with Indigenous peoples. From Button's (2017) thesis and expert1's response, hiring Indigenous peoples and placing them in a leadership position would be a way to participate in reconciliation, which the internship would facilitate. It would have broader implications for business practices as an Indigenous perspective would exist internally to enhance the working culture on the MWF. With consultation with the Indigenous community, the MWF can change their governance structures and way they do business to reflect traditional methods that would foster healthier relationships. For example, based on an interaction with a member of the MNCFN, participant MWF4 mentioned having humility in compensation where there is trust between the two parties for the "employer" to offer the "employee" compensation according to their worth.

Hiring Criteria

Contracts for the intern and MWF staff that delineate this type of exchange regarding compensation and responsibilities for their position would offer a formal means to facilitate reconciliation-related activities. Therefore, the hiring criteria would need to include an evaluation of the candidate's willingness to participate in such activities and some evidence of such interest from previous experiences. It should also assess the alignment of MWF's values and attitudes toward the environment and Indigenous peoples to ensure they are a good fit for the position, type of curriculum they will be learning, and passionate enough to start their own farm (expert2, 2018). Experience is a strong asset, however, it should not limit participation and should be an equitable process (expert1, 2018; MWF4, 2018).

A concern of the MWF is how to parameterize the intern selection as Toole's (2017) thesis recommended hiring an intern with previous farming experience. However, following these criteria may limit opportunities for other motivated candidates to participate that may not have been exposed to farming, or have a means to participate (expert1, 2018). For example, involving Indigenous students was discussed as a possibility to engage in reconciliation and they may not have had the opportunity to gain experience in this field, especially considering the colonial nature of agriculture and lack of Indigenous presence. Also, as participant MWF4 mentioned, the farm may want to attract urban students to create broader change by reaching out to an audience more distant from sustainable food systems.

Sending applications through certain networks such as CRAFT is a form of pre-selection that also limits who could apply to this position (MWF4, 2018). However, this is the platform the MWF should start with as there are farms with a variety of farming practices in that network such as biodynamics, which the MWF can learn from and attract other interns that share the same values as the MWF (CRAFT1, 2018).

Additionally, working with the Indigenous community to set these parameters would also be helpful and demonstrate equity through collaboratively making fundamental business decisions. They may also have knowledge of other platforms for intern outreach. Aligning hiring criteria with MWF values and objectives would be an indicator of where to send the application, and what type of intern the MWF would like to attract and choose to be ambassadors of their farming practices.

Challenges

Although two-eyed seeing is an effective framework to use, there are challenges in the implementation of this curriculum:

- A. The authenticity of the process may be limited due to lack of personalization of the curriculum and reference to the MWF's own indigeneity (Bartlett et al., 2012).
- B. There is a risk of misappropriating cultures, which may occur unintentionally (Marsh et al., 2015; Kapryka & Dockstator, 2012; MNCFN1, 2018; Lowan-Trudeau, 2012).
- C. The MWF requires adequate support systems before introducing aspects such as Indigenous history in Canada and the treatment of Indigenous peoples (Marsh et al., 2015). The experts also indicated some concern with working with Indigenous youth in a

reconciliation context due to triggering trauma, however, this should not be a deterrent for the MWF to participate in reconciliation. The truth must be told, which is the first step toward reconciliation as stated by the Truth and Reconciliation Commission of Canada's Chair Justice Murray Sinclair. These concerns can be effectively addressed, as suggested by expert 1, by communicating with the Indigenous communities and including Elders.

- D. As revealed through the interviews, Indigenous peoples may not have the capacity to offer support, which the MWF would need to consider when approaching a community. The Indigenous community should guide the outcomes and design of the curriculum to suit their capacity and needs.

How does the MWF influence the broader food system?

The next generation of youth that will operate small-scale agri-business need to be better farmers than their predecessors (Orr, 1994). Training young farmers in alignment with the results of this research is the first step in ensuring the MWF's values are effectively translated through the internship program, which they hope will (1) reduce barriers for farmers to start their own farm (2) and influence the way consumers and other farmers view food and their relationships. To be able to expand their influence, the farm needs to attract youth to agriculture and demonstrate the value in small-scale agri-business and its viability to earn a living wage (Orr, 1994; MWF4, 2018; MWF1, 2018).

A means through which they could facilitate this change is through the CRAFT network, which Toole's (2017) thesis explores. Radcliffe, Parissi and Raman (2016) suggest that peer networks are a mechanism to create change faster, which would help the MWF accomplish their objectives faster by joining the CRAFT network. Other farms are currently not viewing farming from this perspective and the MWF's participation in this network could facilitate a discourse around relationships by taking a "reconciliation" (expert2, 2018) approach to create a broader impact through replication (Orr, 1994).

The CRAFT days, as participant CRAFT1 identifies, are a mechanism through which farms can demonstrate their farming practices to interns through which the MWF can communicate that they are not a typical farm (MWF2, 2018). It is also a way for the MWF to share their framework of forming relationships to other farms. Despite a globalized food system, the MWF can tackle such issues at a local scale and scale out that action through training others to carry out these practices (Orr, 1994).

The way the MWF chooses to operate in both business and practice will attract people to the farm and plant the seeds for growing healthier communities across the ORM with the hopes of the intern implementing their knowledge from this experience elsewhere (MNCFN1, 2018). This internship opportunity should highlight the importance of networks and relationship building in creating a robust CSA business as "we need to create the people that are going to change the system" (MWF4, 2018). It should demonstrate the consequences of "corporate colonialism" (MNCFN1, 2018) and that it is not possible to operate an ecologically sustainable economy at a global scale (Orr, 1994). The system thus far has only led to the degradation of the land and our relationships, which this program would help to reconnect at a more fundamental level.

Conclusion

Overall, an agricultural internship curriculum needs to foster relationship building by incorporating multiple aspects of the farm including: the land, the community, indigenous peoples, experts in the field, the farm staff and most importantly, with oneself. Both the literature and interviews recognize the importance of these connections, which allows the intern to develop a more holistic view of the environment. By fostering an ecological land ethic using relationships, the MWF is a key player in advancing agricultural sustainability through creating resilient communities. Looking to Indigenous ways of knowing drives the principles and objectives of the MWF that enhance intern experience and inform farming practices for them to implement elsewhere in the future to influence other communities.

The results of this research indicate that Indigenous ways of knowing can be used in an agricultural internship curriculum with Western ways of knowing by using the two-eyed seeing model and forming relationships. It can be scaled out to other farms to participate in reconciliation as the MWF is able to affect peoples' values across a larger spatial scale by training a future farmer. Although there are some limitations to the concepts discussed in this paper, there are many actions the MWF must take to start this program, which are outlined as recommendations. Following these recommendations in the form of a timeline, there are general recommendations regarding curriculum objectives, pedagogy and reconciliation that any small-scale agri-business can adopt.

Limitations and Research Opportunities

One of the many research opportunities this paper reveals is measuring the effectiveness of the curriculum. Implementing these practices in theory is exciting, but it is important to know if they are effective in practice and are achieving intended goals. Research on indicators would be beneficial, therefore, developing a Theory of Change would be useful for the farm as it allows for backwards mapping from their vision to keep their high-level goal in mind. It also outlines how they are achieving it while recognizing some of their bias and assumptions along the way.

Permaculture and biodynamics are other research areas for the MWF as they were mentioned through the interviews and although not a focus of this thesis, they can be considered ways to participate in reconciliation as these methods align with Indigenous values and beliefs.

The sample size of the interviewees was small due to time constraints and availability. There was also insufficient time to interview more Indigenous peoples, especially those from the MNCFN, the community the MWF may be working with to co-create this curriculum. It would be beneficial for the farm to reach out to these communities themselves to start building a relationship. Research on using the medicine wheel in this context as a learning pedagogy with an Indigenous knowledge holder would also be helpful as the focus on this paper was two-eyed seeing. It is inappropriate for the MWF to teach using this pedagogy as it is not their culture and do not have sufficient knowledge on how to use it appropriately.

Timeline for Program Development

The MWF should take a phased approach to implementing the internship program considering there is no precursor to the program. These specific recommendations address how the MWF can start to implement the curriculum:

PHASE I: Connect with others (April 2018-September 2018)

1. Start to implement previous theses recommendations.
2. Create a set of topics and connect with the people in the MWF's network to determine components to teach.
3. Form a relationship with a local Indigenous community, preferably the MNCFN, to approach them and ask how the MWF can help the community.
4. Connect with the CRAFT network.
5. Pilot the program part-time with a summer intern.

PHASE II: Build with others (October 2018-February 2019)

1. Co-create a curriculum with the indigenous community, which is contingent on the willingness of the community to collaborate or communicate with other interested Anishinaabe educators.
2. Apply to CRAFT to be part of the network by the November 2018 biannual meeting.

PHASE III: Test (March 2019-September 2019)

1. Host a full-time intern to implement the developed curriculum.

Phase IV: Review (October 2019-February 2020)

1. Review the curriculum based on the first experience of hosting an intern.
1. Officially join CRAFT and host interns through CRAFT.
2. Obtain more funding to run a full-scale internship program.

General recommendations

These recommendations address the research question in terms of how Indigenous ways of knowing can be integrated in the curriculum to scale out reconciliation for any small-scale agri-business:

Curriculum Objectives

1. Include relationship building with the land, oneself and others as a core component that is emphasized in each part of the curriculum:
 - a. Land: seeds, water, soil, ecological features, broader colonial and political history of the land and food systems, and how to engage with the land;
 - b. Oneself: opportunity for self-reflection, exploration of identity and heritage;
 - c. Others: learning from the farm staff and Indigenous communities, leading workshops for local communities, connecting with other farms, and understanding the broader modern system.

Pedagogy

4. Use two-eyed seeing by involving Western and Indigenous perspectives side-by-side in each activity.

5. Integrate workshops and demonstrations about Indigenous crafts and practices by reaching out to the Indigenous community and the farm's network.
6. Incorporate storytelling and various art forms as a method of teaching and reflection.

Reconciliation through business practices

4. Improve business practices such as hiring and compensation to align with Indigenous governance structures.
5. Work with the Indigenous community to determine benefits to the community.
6. Educate interns and the community about their values and initiatives through engagement to scale out reconciliation.

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Appendix A: Interview questions

Mount Wolfe Farm

- 1) What do you envision the learning outcomes for the agricultural internship will be for the end of the year?
 - a. As the interns may be new to ecological farming, what values would you like them to take-away from the internship from your experience in farming?
- 2) What do you think is an effective and feasible way to bridge Indigenous and Western perspectives and principles through the internship?
 - a. Follow-up question: Who would be delivering the program? Would both ways of knowing be taught separately?
- 3) Can you describe your communication with, or knowledge of, the MNCFN so far?
- 4) Considering your interest in integrating Indigenous ways of knowing and teaching it may be appropriate to include the Mississaugas of the New Credit First Nations (MNCFN) in your curriculum. Considering such collaboration would take time and financial resources, what is the current capacity of the farm to support a collaboration with the Mississaugas of the New Credit First Nation?
 - a. Do you have a set budget at this time dedicated to the internship?
- 5) Kendra Button's thesis focused on starting reconciliation with the staff through decolonization. It is important to not only introduce these perspectives to the intern, but also embrace them yourselves. In what ways could you make time for this crucial step in your schedule?
- 6) How do you see yourself being involved with CRAFT, the network of ecological farms in southwestern Ontario, and how do you wish to influence ecological farming through this network?

Expert 1: Environmental Health and Equity

- 1) Can you describe any equity issues that emerge from urban food systems relevant to Indigenous groups?
- 2) How can the farm address such equity issues in the form of an agricultural internship program?
- 3) The farm would like to bridge Indigenous and Western ways of knowing through the internship program. What frameworks or methods could the farm use to bridge these knowledges in an equitable manner?
- 4) What values do you think the student should take-away from this internship that would contribute to their understanding and practice of ecological farming?
- 5) How can the educator(s) balance the two knowledges and avoid assimilation, domination or appropriations of either knowledge system?
- 6) Using an equity lens, what opportunities and benefits do you see for reconciliation from the internship program?

Expert 2: Indigenous Studies and Food Systems

- 1) According to Dan Longboat you are teaching an Indigenous Food Systems course and are also running a CSA in Peterborough. Could you please tell me about those? What lessons have you learned about using Indigenous ways of knowing in food systems?
- 2) If you were to provide Indigenous content and cultural elements to a land-based agricultural internship program for a small-scale farm using ecological methods, what would it look like?
- 3) Would you be able to describe or provide references to any existing frameworks for bridging Indigenous and Western ways of knowing in land-based education?
- 4) What values should the student take-away from the agricultural internship that would contribute to their understanding and practice of ecological farming?
- 5) What methods should be used to illustrate Indigenous land-based values and principles, and by whom should the delivery of the internship be done?
- 6) How can the educator(s) balance the two knowledges and avoid assimilation, domination or appropriations of either knowledge system?
- 7) What advice do you have on how the farm could scale out their influence to enhance the curriculum of other farms in southwestern Ontario who may be interested in using this framework?
- 8) How can we involve Indigenous youth in the program? What is a good way to access/engage with them?
- 9) Would you be able to refer me to anyone else, with their permission to share their contact information, that might be interested in providing more information for this study?

MNCFN

- 1) What values should the student take-away from the internship that would contribute to their understanding and practice of ecological farming?
- 2) How would you go about teaching in an agricultural setting in a way that would effectively deliver these values and principles? How could they be culturally representative of the MNCFN?
- 3) What challenges do you anticipate in delivering this type of curriculum?
- 4) What advice would you give the farm about how they should structure the curriculum?
- 5) As part of the farm's interest in reconciliation, I am trying to find out if bridging Indigenous ways of knowing and principles as part of a land-based agricultural internship program would be feasible in collaboration with the MNCFN. Are you aware of any programs or educators that would be interested in and have the capacity to participate in such a collaboration?
 - a. Follow up question if negative answer: What methods could they use to effectively bridge the two ways of knowing?
 - b. Do you think it would be possible to create a framework incorporating the two ways of knowing that is both generic and applicable to different land-based education scenarios?
- 6) From your experience, would MNCFN youth and other Indigenous youth be interested in participating in the internship if framed as a reconciliation effort?
- 7) Would you be able to refer me to anyone else, with their permission to share their contact information, that might be interested in providing more information for this study?

CRAFT

- 1) Could you please tell me more about CRAFT's role and what it means for MWF to be involved?
 - a. What does a typical CRAFT day look like?
- 2) What are the learning outcomes of the agricultural internship programs?
- 3) Can you describe any resources that are available through CRAFT for farms to use?
 - a. How can farms share resources and experiences with each other?
- 4) Are you aware of any farms that use different knowledge systems to teach ecological farming methods as part of a land-based education?
 - a. If so, what frameworks are they using?
 - b. If not, is this a theme that would interest the farms in the network?
- 5) The Mount Wolfe farm wishes to bridge Indigenous and Western ways of knowing (for example having an indigenous person come in to teach about the land) in their agricultural internship curriculum. What do you think about other farms taking this approach? What benefits and challenges do you foresee?
- 6) Would you be able to refer me to anyone else, with their permission to share their contact information, that might be interested in providing more information for this study?

Appendix B: Auto-coded Results

MWF

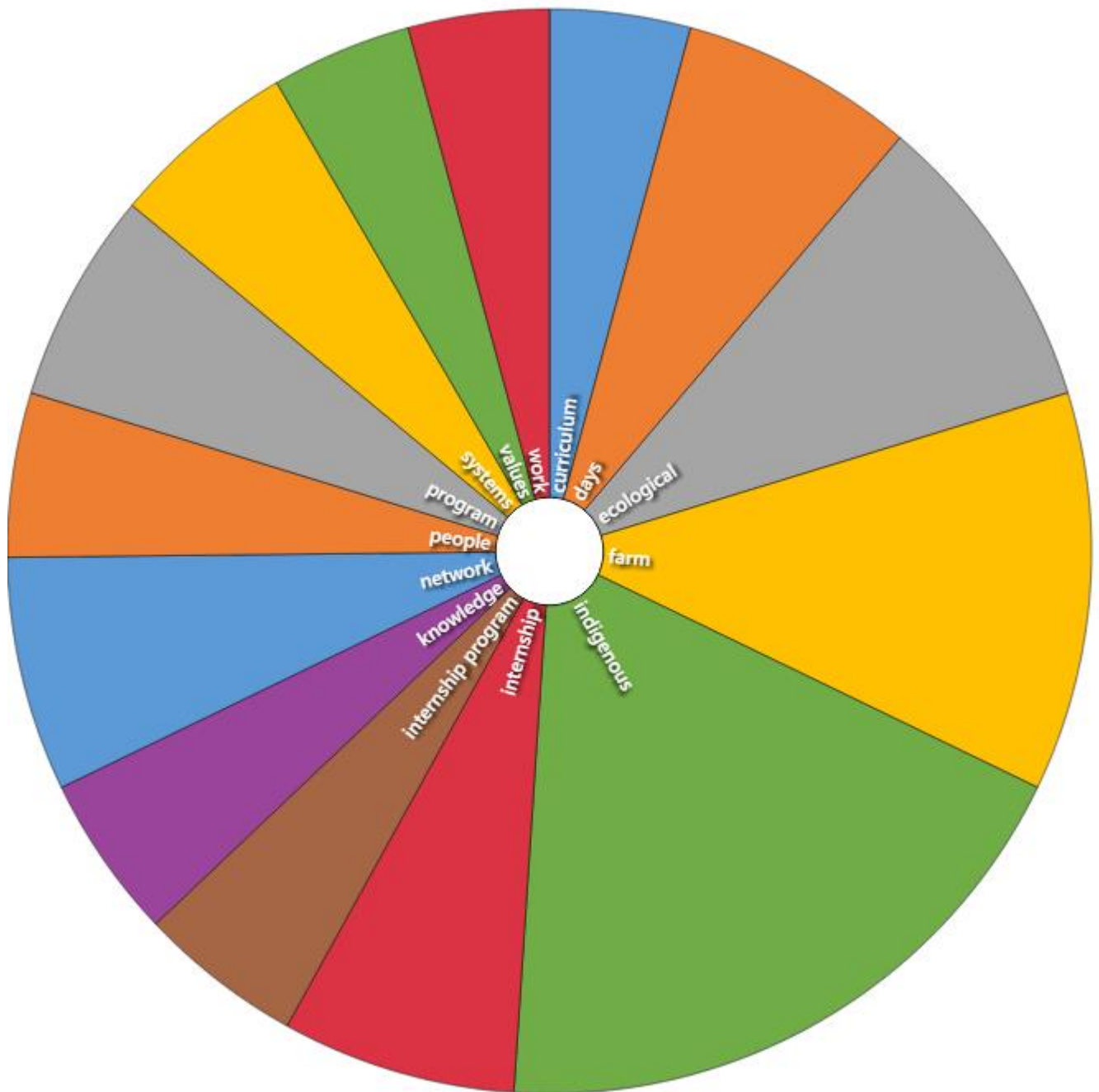


Figure 5 - Four MWF interviews.

Experts

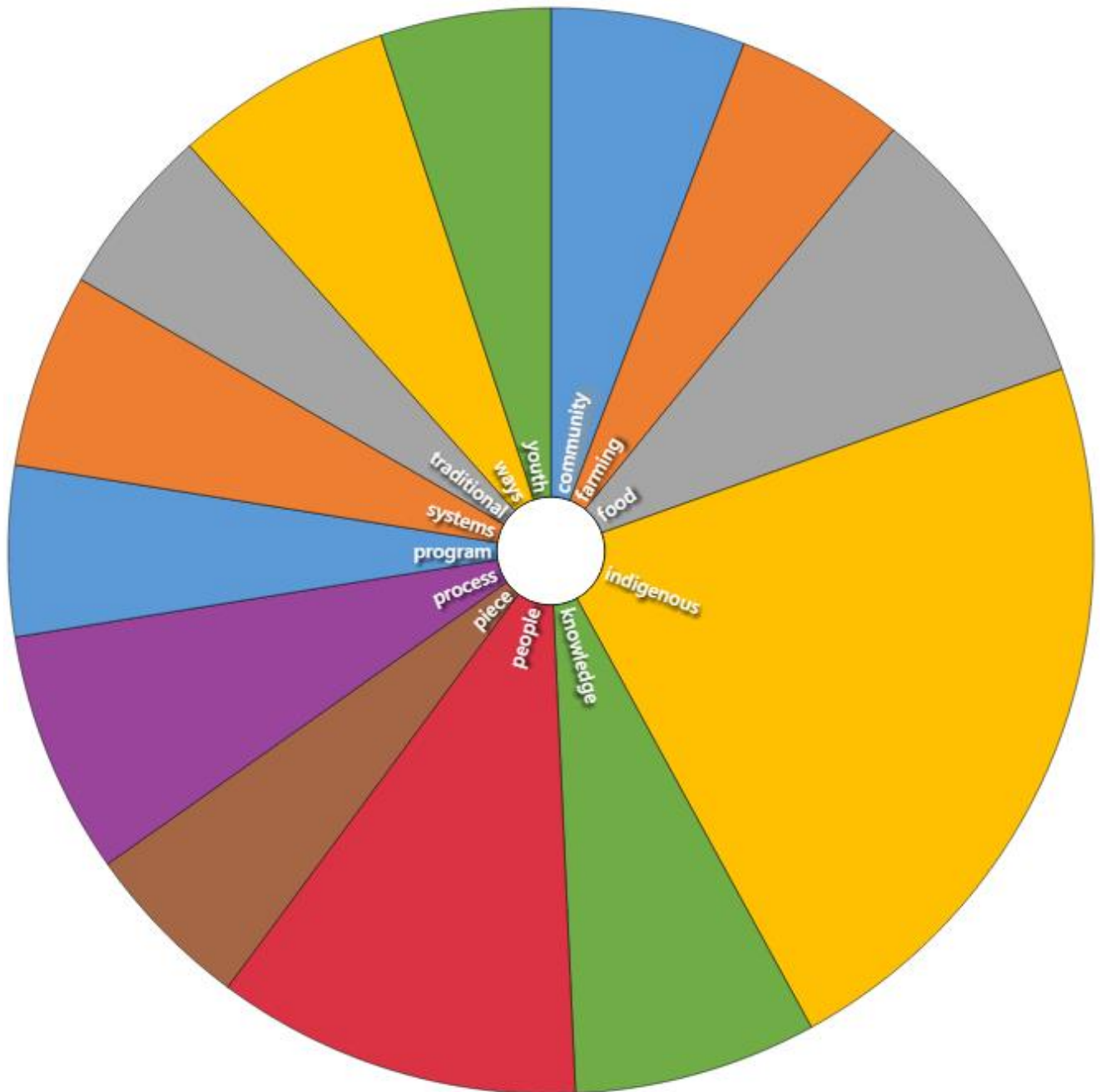


Figure 6 - Two expert interviews.

MNCFN

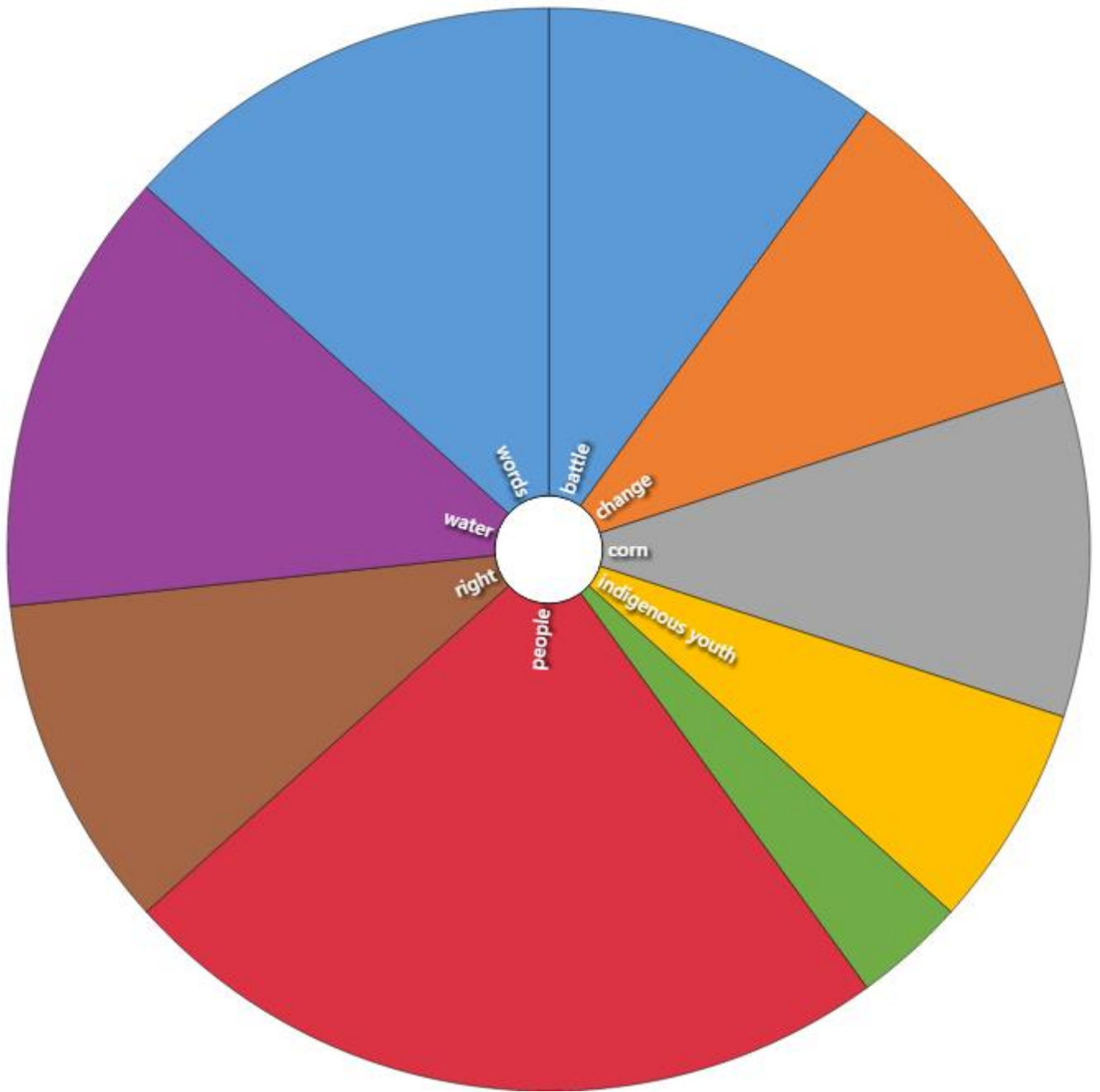


Figure 7 – Interview with the Elder from the MNCFN.

MWF, MNCFN, Experts

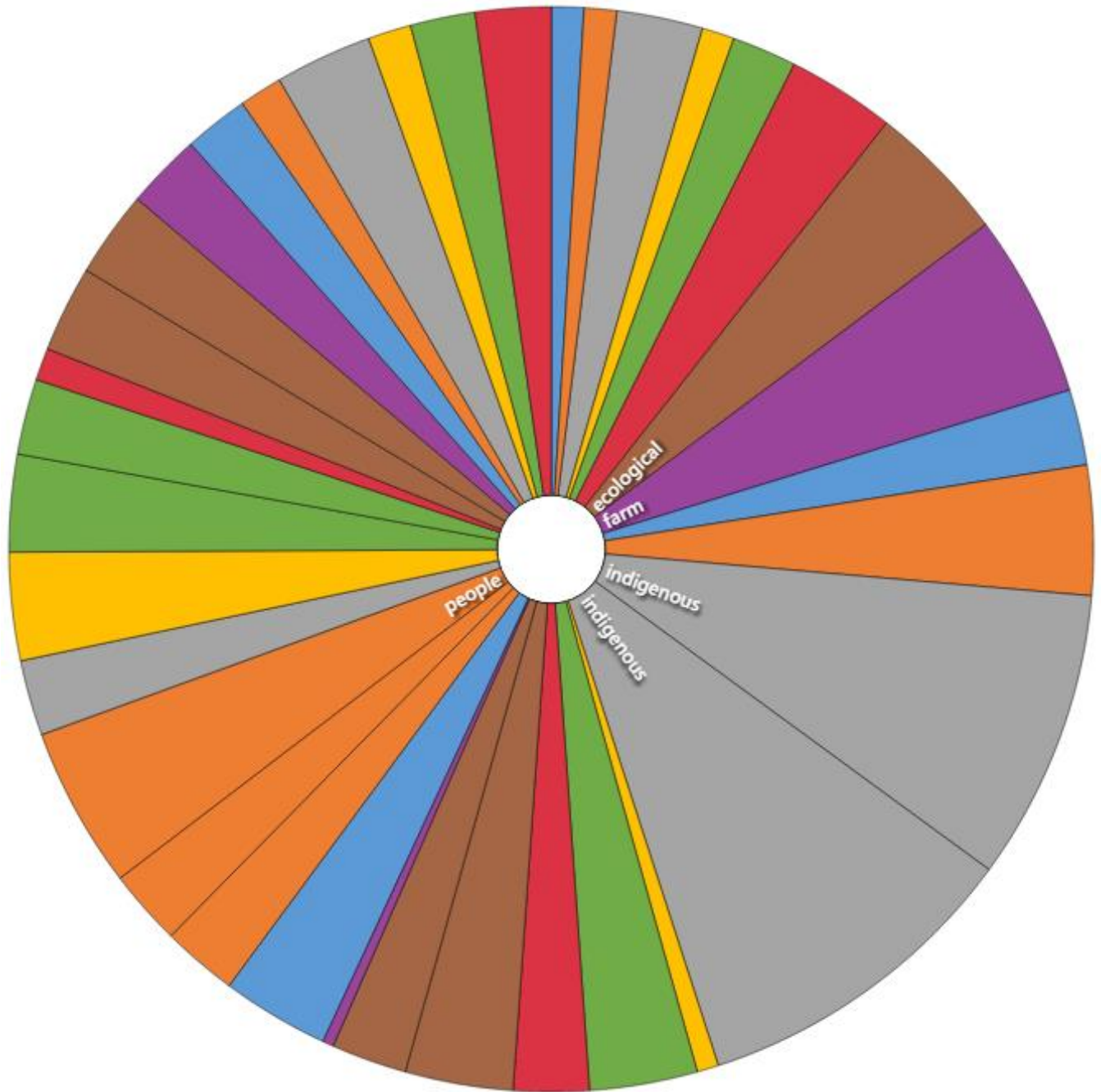


Figure 8 - MWF, MNCFN and expert interviews.

Appendix C: Equity focused knowledge translation

		CRITICAL INQUIRY		
		1. Techniques of Production	2. Techniques of Communication	3. Techniques of Governance
PREPARATION	STEP 1. Situate yourself.	a. Who am I? (a researcher, policymaker, parent, citizen, etc.)	b. How do I speak? (key ideas, concepts, methods, values, motivations)	c. What do I propose? (individual behaviour change, collective action, systemic transformation)
	STEP 2. Inclusivity. Identify your inclusionary and exclusionary practices.	d. Who is included in my work and who is excluded? What barriers to participation do I uphold? What can I do differently?	g. What circumstances give me the authority to speak? What language do I use? Whose knowledge do I reflect? What can I do differently?	j. Where do I place responsibility for health inequities and action on them (victims, communities, governments)? What can I do differently?
REFLEXIVE PRACTICE	STEP 3. Transparency. Discern the extent to which you are transparent to others about your practices.	e. How much value do I place on my own knowledge versus that of my peers? Do I actively seek out other perspectives? What can I do differently?	h. Do I listen before I speak? Do I announce or do I reflect? To whom do I listen? Am I well understood? What can I do differently?	k. How do my contributions work within or against existing power relations? What can I do differently?
	STEP 4. Humility. Reflect on your approach to leadership.	f. How do I convey my limitations in terms of my status, capacities, vulnerabilities and needs? What can I do differently?	i. How do my claims to expertise prevent me from recognizing the voices and/or potential contributions of others (i.e., community, professional, academic) and why? What can I do differently?	l. How do I convey my priorities? What can I do differently?
TRANSFORMATION	STEP 5. Reasoned Action. Use reasoned action with others to envision change.	m. What previously unseen opportunities for equity focused knowledge translation emerge (new collaborations, research questions, new policy prescriptions, new advocacy initiatives)? What can WE do differently?		

Figure 9 - Equity focused knowledge translation model with questions that the MWF can ask themselves prior to collaborating with any Indigenous community.