

BRINGING KNOWLEDGES TOGETHER:
INDIGENOUS ENVIRONMENTAL STUDIES IN ACTION

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ABSTRACT

BRINGING KNOWLEDGES TOGETHER: INDIGENOUS ENVIRONMENTAL STUDIES IN ACTION

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The natural world and environmental issues present critical points of convergence between Indigenous and non-Indigenous people and their knowledge systems. This qualitative study engaged with 18 Indigenous and non-Indigenous environmental practitioners in interview conversations to explore their experiences in cross-cultural environmental collaborations. The research undertakes a complexity theory approach to answer the following research questions:

1. a) What skills, values, knowledges and approaches do environmental practitioners need to enable Western and Indigenous knowledge systems to come together in addressing environmental challenges?

1. b) What does effectiveness and/or success look like in cross-cultural environmental collaboration?

2. How can post-secondary and professional development educational programs impart the skills, values, knowledges and approaches that their students need to effectively engage in work that brings together Indigenous and non-Indigenous people and their knowledge systems in addressing environmental challenges?

This study applied multiple lenses to analyze and interpret the data. The author's own reflections as both a practitioner and researcher working and teaching in cross-cultural environmental contexts were a central component of the study. Through this analysis a set of skills, values, knowledges, approaches, attributes, and roles emerged.

The findings reaffirm the importance of respect, relationship, responsibility, and reciprocity as central values in Indigenous praxis and identify additional values. The application of a critical theory lens illuminated that subtle racism and microaggressions influence environmental collaboration between Indigenous and non-Indigenous people. The study proposes a curriculum and program design for post-secondary and professional development contexts, that draws upon multiple pedagogies to prepare learners to work cross-culturally in respectful ways. These findings are relevant to environmental practitioners currently working in the field and contribute to a further articulation of an emerging Indigenous Environmental Studies and Sciences (IESS) pedagogy.

Preface

I find myself walking along a path in the forest. For a while, it is steady and straight, but every once and awhile there is a fork in the trail. All along the way, the people who went before me left things by the wayside. I explore them as I slowly walk along and sometimes, if I'm careful, the things left behind help me decide which way to go when the path forks again, up ahead.

I'm not sure how long I've been traveling on this trail, all I know for sure is that suddenly I looked up and there it was before me as though I had been walking upon it all along. Once I became aware and started to notice the items along the path, my world changed. I saw that I was following the way that unknown persons left behind them. The path takes me through a sheltered forest with sun trickling between the leaves overhead, light flashes on the trail as I move along, slowly the landscape around me begins to change.

The land begins to give way to small creeks and rivulets of water. At first, I am able to jump over or skilfully manoeuvre across by stepping on slippery rocks, but the water begins to quicken and deepen. The path across is no longer sure. I cannot see where those before me traveled through. Suddenly I find myself at a gap too large to cross. I look around to see if the ones before have left anything behind, but I am unsure I am on any path at all. After awhile of looking around, I think I see traces of clues on the edge of the river, perhaps those are footprints; they seem to lead off into the thick woods behind me or to some other watery abyss.

I sit quietly and listen to the water, the birds in the trees, and the sounds of the forest all around me. I realize, I will need to build a bridge.

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Dedication

For future generations

may we work toward the continuation of all life

for your collective flourishing.

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Chapter One: Introduction

Addressing the environmental and social issues of our time

Many contemporary environmental issues are complex, global, and require cooperation across nations to solve. Over the past several decades, human awareness and understanding of environmental issues has grown, while environmental issues themselves have become more complicated and challenging to understand and address (Capra, 1996; Evering & Longboat, 2013; Ontario Biodiversity Council, 2015; World Wildlife Fund, 2014). This is in part due to a lack of understanding of the cumulative issues resulting from global challenges like climate change or environmental contamination, but also because addressing these issues requires collaborating across sectors, nations and cultures (Capra, 1996; IPCC, 2014). Environmental issues today can be seen as complex because they are not confined to one geographical space or within one nation's boundaries and they involve many elements, which interact with one another resulting in various, often unpredictable impacts (Capra, 1996).

Climate change is a useful example here because it involves multiple elements, levels and scales to understand and address. Climate change requires a detailed scientific understanding of the greenhouse effect and earth's systems for cycling greenhouse gasses as well as the interactions between climate and weather to understand the impacts of a changing climate. Attending to climate change requires diverse solutions, including international dialogue and negotiation on how the global community will agree to address it (for example setting an absolute cap on carbon in the atmosphere) as well as individual, family, community and national-level efforts (for instance changing light bulbs and driving patterns, dietary considerations, and policy incentives for businesses and homes).

The United Nations (UN) has advocated that education across disciplines is essential in addressing climate change and encourages member states to develop inter-disciplinary educational programs that enable shifts in attitudes and behaviours toward addressing climate change and other sustainability challenges (UNESCO, 2009).

Yet climate change is not the only global, complex challenge we are facing; habitat and species loss, environmental contamination, loss of seed diversity, deforestation, stress on water and desertification are other prominent environmental issues (Brown, 2007; Capra, 1996; IPCC, 2014; Kimmerer, 2013; Kool & Kelsey, 2005; Ontario Biodiversity Council, 2015; World Wildlife Fund, 2014). These issues are inextricably linked to our human experiences and have varying impacts on human health and the overall health of human communities.

Scholars have asserted that attempting to solve these issues through purely scientific means will fall short and that it is essential to support scientific inquiry with a corresponding shift in values, attitudes and behaviours in order to address the root causes of environmental challenges (Finger, 1994; Kazdin, 2009; Kellert, 1993, Kelsey & Armstrong, 2012; Kimmerer, 2013). One way this shift can be facilitated is through environmental education (EE) alongside other approaches, such as government regulations, incentives and global frameworks and other possible solutions (UNESCO, 2009). In this study, I use the term environmental education broadly, to refer to formal training that practitioners may experience through post-secondary learning institutions (for instance in the fields of environmental biology) as well as informal learning that may take place through professional development training or in other venues (i.e. nature centers).

Increasingly, scholars and practitioners are advocating for a model of environmental education that brings together multiple knowledge systems and works across academic disciplines as they highlight the pitfalls of relying entirely on a western scientific understanding of environmental challenges through the physical sciences to guide solutions to environmental degradation (Longboat, Kulnieks & Young, 2013; Kimmerer, 2013; UNESCO, 2009). As Longboat, Kulnieks and Young (2013) write, “As for environmental education, we imagine the ‘practice and process’ as an emerging discipline that is moving beyond teacher education programs and environmental and Indigenous studies programs into the health sciences, humanities, international studies, business, philosophy, and other disciplines.” (p. 9) This suggests that EE is broadening to include multiple knowledges (from western and Indigenous knowledge systems) and perspectives in recognition of the need to engage people on these issues beyond building an understanding of these challenges through the western physical sciences alone.

As nations, communities, families and individuals there are many potential responses and means of addressing environmental challenges, from government policy and regulation to public education and individual actions aimed at reducing environmental impacts and addressing shared issues. In this research, I am primarily concerned with educational responses and approaches to addressing environmental issues and in the contexts where Indigenous and non-Indigenous people come together to think about and address environmental concerns.

This research is situated in the Canadian context where there are upwards of 630 Indigenous Nations, many of which are engaged in addressing environmental concerns in

collaboration or in conflict with Federal and Provincial governments, non-governmental organizations, scientists and natural resource industries. These environmental challenges range from localized issues (for example, lack of access to clean drinking water) to the threats posed by global climate change (Galway, 2016; Golden, Audet, & Smith, 2015; McClymont Peace & Myers, 2012; Patrick, 2011; Sanderson et al., 2015). Scholars and researchers have linked environmental issues with social issues, such as colonialism and illuminated the need for practitioners to recognize the ways that colonialism contributes to environmental destruction on traditional territories (Korteweg & Russell, 2012; Tuck, McKenzie & McCoy, 2014).

A common area where environmental challenges and colonialism converge in Canada are natural resource development projects that are being imposed on Indigenous Traditional territories and treaty lands (Korteweg & Russell, 2012). Imposing natural resource projects on Indigenous Nations undermines relationships and perpetuates colonialism and settler colonialism. As Kortewag and Russel (2012) explain “First Nations Lands and Indigenous communities reside adjacent to every major natural resource development opportunity that Canada wants to exploit to build its economic wealth,” (p. 6). When a project is proposed, people and their knowledge systems inevitably come together. Some examples of the processes that bring peoples together include Environmental Impact Assessments, Forest Management Planning processes, hydro-electric development, oil/gas pipelines, proposed mines, and others. Additionally, diverse groups are coming together to address areas of shared concern such as loss of species and biodiversity, climate change, and protecting water quality.

Therefore, environmental practitioners working in cross-cultural environmental contexts in Canada require a diverse and complicated suite of knowledges and skills to work across cultures and disciplines to address environmental challenges. These skills and knowledges range from engaging in quantitative and qualitative research, developing a western science-based understanding of environmental management and monitoring, communicating effectively with various audiences, working through conflict and difficult dialogue, collaborating with Traditional Knowledge Holders and confronting ways of knowing that may differ from their own. Environmental practitioners are employed by government agencies, non-governmental organizations, Indigenous organizations and nations, and in other sectors including business/industry, health and education, each sector with their own unique expectations of the environmental practitioner.

In this study, I explore the contexts where people work cross-culturally on environmental issues. This research stems from my own experiences working cross-culturally on environmental issues in Canada. Building on my previous work and relationships is an approach to research that draws on the foundational values of Indigenous research, such as relationships. I am referring to these as environmental issues, but they are often characterized in other ways, for example, as natural resource management challenges or with respect to Indigenous Nations, as nested within broader goals of self-determination of Traditional lands and territories. Thus, the focus of this study oscillates between two areas of focus: on the practitioner and the cross-cultural collaboration that happens ‘on-the-ground’ in addressing issues and on education and the educational needs for environmental practitioners who work in cross-cultural environmental contexts.

By framing this study within the context of environmental education, I am building on the work of many scholars and practitioners who come before me and join the efforts to develop practice in environmental education and to critique, build on and transform environmental education practice over the years (Cajete, 1994; Chawla, 1999; Longboat, 1998; Longboat, Kulnieks & Young, 2013; Orr, 1992).

Necessity and quality of collaboration

We are at a time in planetary history where human societies are causing unprecedented change to the natural world and climate. Many of us working in these contexts are endeavouring to address issues at various scales: local, provincial, national and global. The complex nature of environmental issues, coupled with the various scales at which they are operating, speak to the necessity of collaboration across communities, cultures, nations and landscapes.

While many are working to address these pressing environmental challenges, relationships between settler governments and Indigenous peoples are being redefined as Indigenous peoples and non-Indigenous allies mobilize on their shared concerns through movements such as Idle No More, the call to action which has emerged from the formal ending to the Truth and Reconciliation Commission in Canada and the recent visit from the United Nations Rapporteur on Indigenous Peoples and his subsequent report. EE can and should evolve to address not only the environmental challenges currently faced by the human race, but to support environmental and social justice through holistic programs that foster knowledge sharing and collaboration, intercultural dialogue, relationship building, and decolonizing. In the words of Haudenosaunee Elder Jake Swamp (2010), “it’s important that we try to work together as a human family, especially because of

what we face. And if you listen to the news lately, there are lots of things that are coming to the forefront that need our attention, and that's part of our relationship building, to bring cooperation between all cultures of the world." (p. 18) This work explores how Indigenous and non-Indigenous peoples come together to address environmental challenges in Canada and the implications of their practices on EE programming at the tertiary level and in post-secondary learning environments.

Research Questions, Objectives and Study Boundaries

The primary focus of this research is to understand the values, skills, knowledges,

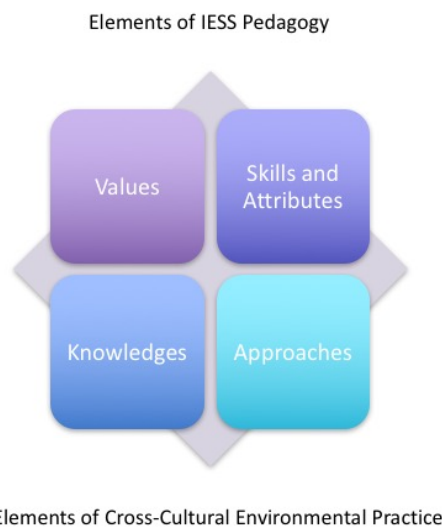


Figure 1: Elements of IESS Pedagogy and Cross-cultural Environmental practice

and approaches that enable people and their knowledge systems to come together in addressing environmental challenges and to contribute to the further development of an emergent pedagogy that has been identified in a number of post-secondary institutions, but has yet to be fully articulated (Rich, 2011). This pedagogy may be adapted and relevant at any educational level, however this research will focus primarily on the tertiary level and professional development training.

In fulfilling this overarching research goal, this study addresses the following research questions:

1. a) What skills, values, knowledges and approaches do environmental practitioners need to enable Western and Indigenous knowledge systems to come together in addressing environmental challenges?

1. b) What does effectiveness and/or success look like in cross-cultural environmental collaboration?

2. How can post-secondary and professional development educational programs impart the skills, values, knowledges and approaches that their students need to effectively engage in work that brings together Indigenous and non-Indigenous people and their knowledge systems in addressing environmental challenges?

This study itself does not directly address or collect Traditional Knowledge, but rather, explored the means of effectively engaging diverse knowledges in the process of teaching and learning about the environment. This work brings together multiple fields of study and individuals from a variety of contexts to explore this emerging area of research.

This study aims to articulate and share with non-Indigenous environmental practitioners and educators the modes of respectfully engaging with IK and developing learning experiences that are centered in Indigenous perspectives within academic contexts and outside of formal learning institutions. This research seeks to build better relationships between Indigenous nations and settlers and to promote alliances, partnerships and collaboration between peoples. By sharing the findings of this study with practitioners my hope is to improve the quality of environmental collaboration by enhancing respect among non-Indigenous practitioners for IK systems and recognition that these knowledge systems are a valid and productive means of understanding the world and in particular environmental issues.

At the core of this work is a focus on knowledge system interaction and how multiple knowledge systems can come together in environmental collaboration. In this study, the focus will remain primarily on IK and WK, but at times a broader view will be explored.

In this study, I value the contributions of each of the participants and consider their insights important regardless of whether or not their insights resonated explicitly with the other participants. In other words, I included contributions from participants if they were mentioned numerous times or only once. Throughout this dissertation, I will identify whether or not an idea or contribution was mentioned by several participants or only one, to guide the reader in understanding the ways in which participants' contributions and insights both resonated with and were different from one another. I attempted to keep the contributions in the voices of the participants by including direct quotations from our interview conversations. By valuing and including the participants' ideas in this way, I hope I have honoured their contributions, unique experiences and insights.

Positionality

I am a non-Indigenous woman who grew up on Haudenosaunee territory in a rural area north of Hamilton, Ontario. My Ancestors are mainly Romanian, Scottish, Irish, British and Iberian and came to what is now called Canada two and three generations ago. My people were farmers and possessed a strong connection to land, which I have carried into my life. Currently, I reside in Nogojiwanong on Michi Saagiig Nishnaabeg territory (Peterborough, Ontario).

My Relationship with this Work

For as long as I can remember I have been concerned about the destruction of the natural world. As I grew older, I saw the scale and pace of environmental destruction increase and felt called to work on addressing environmental challenges. Being engaged in learning about and addressing environmental issues has been fulfilling, empowering, and has led to much personal learning and growth. At the same time, I have had moments of feeling crushed by defeat, depressed about the state of the world, angry, fearful, and hopeless...

Throughout my undergraduate work in environmental studies I found little support for this roller coaster ride of emotions and perspectives. Looking back, I realize it was not only a lack of support, but also a lack of acknowledgement of the troubling nature of the material we, as environmental studies students, were being bombarded with day after day, year after year. To me, this is the crux of my work: environmental education programs (be they based in a university or elsewhere) are often deeply rooted in Western scientific modes of knowing and being, which do not make space for emotions, relationship building between people(s) and the land, or spirituality. However, those very things (emotions, connection, relationships, spirituality) are what I have found to be essential in supporting me in continuing my work in the environment sector. Therefore, I think it is critical to provide environmental learners with the time and space to establish meaningful relationships of mutual support, to build the necessary connections, with both other humans and the natural world, and to participate in “on-the-ground” work in the community as part of their learning. Additionally, I believe it is

essential to explore and articulate the emotive responses students experience as a result of their learning and to consider their own spirituality as it pertains to their work.

Having worked as an environmental practitioner for over a decade, I have collaborated with non-governmental organizations, worked for Indigenous nations and Indigenous organizations and facilitated dialogue between First Nations and government/industry. Through this work, I have seen first-hand the challenges in engaging in meaningful dialogue as people(s) come together to collaborate on environmental challenges. In my experience, these interactions commonly generate misunderstanding, poor communication, alienation and the surfacing of negative emotions, which can derail trust and relationship building as well as progress toward addressing the challenge at hand.

Essentially, I think environmental education is falling short. I believe in the power of EE, because despite negative experiences, I have also experienced transformative learning and critical consciousness through EE programming. In my experiences in the IESS program at Trent, I have seen how a different type of EE can be both transformative and catalyzing for learners and that confronting new knowledge systems, engaging with IK and confronting their own worldview are all essential components to their growth, change and commitment to working to sustain life. I am committed to uncovering additional processes and approaches to engaging learners in programs that support their whole being and provide them with a suite of skills and values that enable them to go on in their lives to collaborate respectfully and to find lasting solutions to the many urgent challenges that we collectively face as peoples living on Earth. These goals are the key motivation behind this research.

More recently, I have come to join the IESS program at Trent University as a teaching assistant while working broadly within the department of Indigenous Studies. My experiences as a teaching assistant in the courses in IESS have provided me with an ‘insider’ understanding of the program goals, objectives, curriculums, and approaches currently engaged in IESS at Trent. This research will honour the knowledge I have gained in this context and will draw on my personal learning, reflection and experiences as a teaching assistant and in developing curriculum in this program. In this work, I also seek to enable the sharing of these approaches to pedagogy with community, government, industry and more specifically with other post-secondary academic institutions and programming.

The Anishinaabeg, Haudenosaunee and Cree Elders, Knowledge Holders, colleagues and friends that I have worked with over the years have helped me to understand this journey and my role as a non-Indigenous person working within the discipline of Indigenous Studies and Indigenous Environmental Studies and Sciences (IESS). They have spoken to me of the responsibilities we all have to the knowledge, stories, and names that are given to us. These are strong themes in Indigenous Studies: what do we do with what we have learned and who will benefit? In this discipline, ensuring the work is of benefit to our communities is an essential component. In IESS, similar themes emerge as well as a central theme to work toward the continuation of all life, as has been expressed in the original instructions of Haudenosaunee Elders and Knowledge Holders.

For me, I see a central aspect of my role in Indigenous Studies as working with my people: settlers, people of European descent, and other newcomers to this land to

understand the knowledge and stories that have been shared with me. Stories that span generations and speak of the early Treaties and relationships between Haudenosaunee, Anishinaabeg, and Algonquin Nations and Europeans. Stories of sharing and respect and then a gradual assertion of power over and ultimately, a story of genocide. Today the stories continue to evolve to consider reconciliation between nations and using the Treaties as a guide to restoring our relationships.

Indigenous and non-Indigenous relations have been a growing focus of national attention and dialogue over the years that I have been conducting this research. In 2012, when I began my studies as a doctoral student at Trent, the Idle No More movement came to the fore with round dances, teach-ins and a huge social media presence across Turtle Island. Shortly after, James Anaya, the United Nations (UN) special rapporteur on the Rights of Indigenous Peoples, visited Canada to report on the state of Indigenous rights. Anaya's (2014) report *The Situation of Indigenous Peoples in Canada* outlines a number of human rights abuses including lack of adequate services (housing, education, social services, health care and welfare) the issue of missing and murdered Indigenous women and girls, and over representation of Indigenous peoples in the justice system, among others. The Federal conservative government at the time did not acknowledge the report, but for those of us who were watching, it provided yet another catalyst for our work.

In 2015, the formal closing of the five-year Truth and Reconciliation Commission (TRC) took place, with events and media coverage on the closing. The formal ending to the TRC spurred a series of conferences and symposia across the country exploring reconciliation in Canada. Throughout its five-year mandate, many books and articles

were written about the process of the TRC in particular, but also settler colonialism more broadly, which also elevated national discourse on reconciliation, settler identity and responsibility, and Indigenous/non-Indigenous relations in the country.

A year after the conclusion of the TRC, during the federal election campaign, Indigenous issues were at the forefront again, with several large-scale natural resource projects on the table (including national oil pipeline proposals) and the implications for Indigenous rights making their way into public discourse and onto the campaign trail. Justin Trudeau, now the Prime Minister, vowed to renew the relationship between Indigenous nations and Canada and to ensure that Environmental Assessment (EA) processes were restored and that Indigenous rights would be protected. Trudeau asserted that projects would only move forward when Indigenous nations have had an opportunity to provide informed consent. This brings us to the present, to the writing of this dissertation, a time ripe with opportunity to engage settlers and Indigenous peoples in a dialogue about their nationhood: their values, beliefs, practices and the implications of all of this for reconciliation with one another and our responsibility to the land.

Climate change and the fossil fuel economy in Canada, herbicides and Northern Ontario boreal forest, habitat connectivity and species at risk, protection of biodiversity and seed diversity, food security. These are the issues I have been engaged in over the years, working with Indigenous and non-Indigenous people, Indigenous organizations, non-profit environmental organizations, governments and industry to find solutions to the challenges that we face. Working in the environment sector was my entry point to Indigenous and non-Indigenous relations. I worked in the Environmental Not-for Profit Sector (ENGO) for a number of years after my undergraduate degree in environmental

studies and moved around the country and world doing so. During this time, I collaborated indirectly with Indigenous nations, but never directly on shared projects. After a few years working in the ENGO sector, I was feeling burned out and frustrated with the endless government policy processes, lack of resources, sense of competition across the sector, and knew I needed to pursue another direction while maintaining my connection to working for the environment. This led me to undertake a Master's degree in Environmental Education and Communication at Royal Roads University where I turned my focus from learning about the issues to thinking about how to best communicate and teach about them.

From there, my husband and I moved to Northern Ontario and I began working with Mushkegowuk and Northeast Superior Regional Chiefs Forum nations and Indigenous organizations, where I collaborated on the development and delivery of training and engagement on forestry, climate change, environmental assessment, mining and other locally relevant issues. This has been my work for the past seven years alongside the pursuit of my doctoral degree in Indigenous Studies. Much of my thinking has been focused on understanding my role and responsibilities to the knowledge that has been shared with me, within the context of my life and work. The teachers and Elders I have worked with at Trent as well as participants in this study have helped me see that I myself am a bridge. The role of a bridge as a conduit or facilitator for knowledge exchange is something that will be explored in this work in terms of what it means to be a bridge in the context of cross-cultural environmental collaboration alongside other roles that are relevant and helpful in these contexts.

My hope is that through this dissertation and sharing of my experiences and reflections, I can contribute to the on-going dialogues surrounding environmental issues, reconciliation and cross-cultural knowledge collaboration. I hope the ideas generated in this research will support those I work with and others in understanding the importance and necessity of respectful cross-cultural collaboration. I see this dissertation as a resource and set of tools for building capacity in knowledge exchange and sharing around environmental concerns. I hope that through the further definition of an IESS pedagogy, educators elsewhere will be able to draw inspiration and develop programming that applies IESS principles, values and approaches to their local contexts.

Indeed, it appears we are at a time in Canadian history, where settlers are engaging a re-learning of our own history and nationhood. Over the years it has taken to complete this research and write this dissertation, environmental issues have become more prominent and pressing with wildfires, flooding and impacts of climate change happening across the country with every changing season. At the same time, social justice issues and human rights abuses continue. I hope this work can contribute to our collective efforts to address and overcome these challenges, for all of our children and grandchildren and all the beings in creation.

Terminology

This terminology section outlines working definitions for terms used throughout this study. I acknowledge that definitions and terms are contested and evolving, therefore, I have attempted to include broad definitions to the terms used in this work.

Attribute

A characteristic, quality or feature possessed by an individual.

Environmental Education

Teaching and learning about the environment, earth systems, environmental challenges and issues as well as human-nature relationships. Environmental Education comprises both formal and informal learning such as that which takes place at primary, secondary and post-secondary institutions or nature centers, museums and other non-formal environments.

Indigenous Environmental Studies and Sciences

Indigenous Environmental Studies and Sciences (IESS) is a program at Trent University that aims to enable collaboration and engagement between Indigenous Knowledge and Western ways of knowing to address environmental challenges. IESS is related to the work of scholars in other programs such as Integrative Science (Cape Breton University), Indigenous and Environmental Studies (Cornell University) or to the work of researchers at SUNY's College of Environmental Science and Forestry.

Emerging from these contexts is a community of research and practice, which honours multiple ways of knowing and makes space for plurality in environmental learning, research and decision making. In this work, the terms "IESS" or "IESS-type" will be used to refer to programs, projects, and pedagogies that actively seek to bring

together multiple knowledges, especially Indigenous Knowledge with Western ways of knowing (in particular the sciences) in addressing environmental issues. According to Rich (2011) there is a pedagogy developing within and across these programs, which this research will seek to further articulate.

Bringing Knowledges Together

What does it mean to bring together knowledge systems? What does success look like in these contexts? These questions are at the core of this work. In this dissertation, bringing together knowledges means to create equitable space for both Indigenous and Western knowledge systems and practices in environmental education and collaboration. Willie Ermine's (2007) framework, the ethical space of engagement provides a helpful starting point for thinking about how individuals from distinct worldviews can come together to cooperate on challenges of mutual interest. Ermine defines ethics as the capacity to know what harms or enhances sentient beings, which in this context refers to group approaches that ensure individuals and their knowledge systems are not harmed by participating in collaboration.

It is important to clarify that while this study utilizes the labels of 'western knowledge' and 'Indigenous Knowledge' in a context of bringing knowledge systems together, that these knowledge systems are not understood as being in a dichotomous relationship. In other words, these knowledge systems are understood to have differences, similarities and shared elements and are not seen as entirely distinct. This research will explore these ideas more deeply with research participants as a core component of addressing the research questions.

Indigenous Knowledges

This and related terms (for example Traditional Ecological Knowledge) will be described in detail in the literature section below, however it generally refers to the knowledge systems, teachings, beliefs, values, practices and learning approaches of Indigenous peoples with regard to the natural world. The word knowledge is pluralized throughout this study to acknowledge the diversity of knowledge and ways of coming to know within Indigenous and Western knowledge systems. In IK systems, knowledge is seen as a process of coming to know by “entering into relationship with the spirits of knowledge, with plants and animals, with beings that animate dreams and visions, and with the spirit of the people” (Peat 2002, p. 65).

Knowledge

From a Western perspective today, knowledge includes facts, information and skills acquired by a person through their education and experience; in this study the facts, information and skills are seen as essential components of knowledge system interaction. It is important to acknowledge that different knowledge systems conceptualize knowledge in contrasting ways, for example, Castellano (2000) and David Peat (2002) discuss Indigenous understandings of knowledge as quite different from Western conceptions where from an Indigenous perspective, knowledge is seen as alive and with its own spirit and is accessed through processes (for example, listening, observing, storytelling, dreaming and ceremony) and in specific places. The verb-oriented approach to understanding knowledge is also related to the idea of ‘coming to know’ or ‘ways of knowing’, which are terms that will also be used in this research. These contrasting views of knowledge and how it is accessed, shared and preserved will be further explored

in the dissertation itself especially with regard to how knowledge systems come together and the implications for tertiary education.

Rick Wallace (2013) suggests, especially within a decolonizing approach to research, “knowledge as partial, subjective, and situated” (p. 19) moving away from the idea of ‘absolute truths’. It is important to note that western knowledges and in particular, western science is often seen by western thinkers as ‘objective truth’, while “much of what Western scientists do flows from their particular paradigm, worldviews, and belief systems.” (Peat 2002, p. 100).

Pedagogy

Pedagogy, taken broadly, refers to the art and science of teaching and learning. The processes of teaching including the strategies and style of instruction, the principles and practices as well as the skills, values, and knowledge to be shared with the learner. For this study, articulation of an IESS pedagogy will focus on the learner in particular the skills, values, approaches, and knowledges central in IESS contexts and on the educator including processes and approaches for teaching and ideal ways of organizing and structuring programs to achieve IESS learning goals/objectives.

Skill

The ability to do something well or with proficiency.

Successful and/or Effective Collaboration

Central to this study is an understanding of what enables collaboration between people and knowledge systems to be effective or successful. To me, successful or effective collaboration entails respectful interactions, listening to one another, creating space for each person’s perspective to be heard and responded to, and ensuring group

processes are fair and equitable. Approaches used to ensure collaboration is effective, fair and equitable will be articulated throughout this dissertation. Additionally, success or effectiveness also relates to the ability for practitioners and partners to address the environmental issues they are confronting in their shared work.

Value

A person's principles or standards of behavior; one's judgment of what is important in life. It is important to note that one does not always behave in accordance with their highest values, but oftentimes, our values are aspirational and comprised by a continued striving to embody our principles and ways of being.

Western Knowledges or Eurowestern Knowledges

F. David Peat (2002) writes that western “refers to a certain worldview that has come to dominate the globe, both economically and through science and technology. Western sets of values are often adopted by people... who have grown up in North America, passed through its school system and entered the workforce.” [sic.] (p. 21). Peat explains that the term European refers to the historical origins of what we today call science, as well as the philosophical and political worldview that evolved in Europe (Peat 2002, p. 21). For many, our worldviews are often unseen (see entry below on worldview) and the beliefs and values that shape our thinking are not explicit, therefore, it can be difficult to see how those values and beliefs shape our research and the way we come to know and believe something. In IESS pedagogy, making the unseen, seen is a central element, which can help prepare students for cross-cultural collaboration. This speaks to the critical role personal reflection plays in approaches to teaching, learning and collaboration in IESS contexts.

Western Ways of Knowing

In this work, Western ways of knowing (including Western science and other Western approaches such as education, psychology, etc.) will be used as an inclusive phrase that describes the multiple ways of knowing and making meaning within Western knowledge systems. The term Western Knowledge (WK) will be used broadly throughout this document. Where specific reference to one element of WK is intended, for example Western science, it will be specified. It is important to note here that western science is used as broad term that includes not only the western physical sciences, but also psychology, sociology and the social sciences as well.

Worldview

For the purposes of this research, I will work with an understanding that worldviews are an over-arching framework within which cultural practices, ways of being, ways of making meaning and knowledge systems are embedded. This understanding acknowledges that within worldviews diverse approaches, practices, values and beliefs can be found, or in other words, that worldviews are not uniform. As Lesley Kuhn (2007) explains, “a paradigm or worldview refers to a connected set of beliefs or basic assumptions, or a dispositional stance about the nature and organization of the world, together with beliefs about how to best investigate it.” (p. 156)

F. David Peat (2002) writes,

All of us see the world through the spectacles of our worldviews, through our particular ways of seeing and thinking about reality and society. Moreover we hold these worldviews in a largely unconscious way. We are not normally aware that we experience the world through their transforming or distorting, power. Since much of our worldview is

culturally shared, we simply talk about ‘the way the world is’ (Peat 2002, p. 39).

Wallace (2013) illuminates the relationship between worldview and power, which is helpful to consider in the context of this study. Wallace suggests that worldviews or paradigms are systems of thought, ways of understanding and acting in the world “that are imbued with numerous power relations and consequences” (p. 22). Wallace draws on Foucault (1972) and explains that power relations influence our worldview, including our “everyday economics and politics of our lives, our social policies and our modes of governance, social values and beliefs” (Wallace 2013, p. 23). In this light, the role of personal reflection and building awareness of our own worldviews becomes crucial so we may begin to see the ways our own behaviours, thoughts, attitudes and practices reinforce the unequal power relationships in our cross-cultural collaborations.

Overview of this dissertation

In this section, I briefly outline the flow of this dissertation to guide the reader through this work. This dissertation has been organized into a number of chapters, which have been divided in response to the research questions and with a diverse audience in mind. I have organized this dissertation into ten chapters, which each deal with specific research questions and/or areas of focus. Readers may wish to read only the sections that are relevant to them, rather than reading the entire document or may wish to read from start to finish. Each chapter builds on the ones that come before, by deepening the analysis and adding to the understanding presented earlier, but the chapters are also envisioned as stand-alone pieces that can be easily understood on their own.

This research explores multiple levels and sites of application including environmental practitioners working in community, government or organizations and educators working in post-secondary and professional development contexts. Exploring these broad, yet related sites of practice and application have resulted in a comprehensive and far-reaching dissertation.

Following the introductory chapter, is a chapter that summarizes literature relevant to this study. The literature review familiarizes readers with key concepts and themes that will be used throughout this dissertation, such as Traditional Ecological Knowledge, Decolonizing and Unsettling, metaphors for knowledge system interaction as well as background on Traditional Indigenous Education, Critical Theory related to EE, and Transformative Learning theory.

The third chapter provides an overview of the research design, methodology and methods used in this study. It provides the theoretical orientation and explores the approaches to data collection and analysis used in this research. Chapter three includes a description of the participants in this study and the ethical considerations to their involvement in this research.

Chapter four begins to present the results from this study. Chapter four explores responses to the first research question (What skills, values, knowledges and approaches do environmental practitioners need to enable Western and Indigenous knowledge systems to come together in addressing environmental challenges?) by detailing the values, attributes, knowledges and skills shared by participants in this study.

Chapter five continues to respond to the first research question by sharing the approaches and roles central to working cross-culturally that emerged from this research.

Chapter five provides an overview of the challenges participants in this study experienced when working across cultures on environmental issues. Next the chapter explores the second element of research question one and reflects on what success and effective collaboration looks like in cross-cultural environmental contexts from the perspective of those involved in this research.

Chapter six applies a critical theory lens to the data set collected in this study. The chapter synthesizes relevant literature with the information shared by participants in this study in applying critical theory to this research. The chapter illuminates the racial and power dynamics that participants in this study shared in our interview conversations. This chapter explores the notion of subtle racism and introduces microaggression theory. Microaggression theory is then applied to the data set collected in this study and stories from research participants are shared to identify when and how racism is perpetuated in the environmental collaborations discussed in this study.

Chapter seven addresses research question number two (How can educational programs impart the skills, values, knowledges and approaches needed to effectively engage in work that brings together Indigenous and non-Indigenous people and their knowledge systems in addressing environmental challenges?) by applying the findings from question one to the identification of the philosophical underpinnings in IESS pedagogy, including potential approaches to teaching and learning in IESS, and situating these findings in the academic literature

Chapters eight and nine apply what was learned in this research in exploring research question one to the development of suggestions for course themes and instructional design in IESS at post-secondary and professional development levels

respectively. Chapter eight offers a proposed program design for IESS pedagogy and suggestions for curriculum at the post-secondary level. Chapter eight also describes resource requirements in delivering IESS pedagogy as envisioned in this dissertation.

Chapter nine presents the professional development training recommendations resulting from this study and suggests course themes and target audiences for professional development training.

Finally, in the closing chapter I summarize the research and findings. Chapter ten relates the findings from this study to wider social and environmental realities in Canada and shares recommendations for further research.

Chapter Two: Literature Review

In this chapter, I examine literature from a variety of fields, including but not limited to environmental and science education, Indigenous and non-Indigenous scholarship on IK, TEK, decolonization/settler colonialism, knowledge interaction and collaboration, alliance building, as well as Traditional Indigenous education systems, critical theory (especially as it pertains to EE), ecopsychology, transformative education theory and critical theory. Exploring broad and diverse literature supports the complexity theory approach in this study to include a variety of perspectives on this topic.

I have drawn primarily on works emerging from the fields of Indigenous Studies, Education and Environmental Education, knowledge interaction and Psychology/Ecopsychology. These fields are instructive for this study given the focus on developing environmental education curricula. In this chapter, I present concepts and themes that are built upon throughout this dissertation. Therefore, the focus of this literature review is to provide foundational concepts, themes, and ideas that are necessary for the reader in moving through this dissertation.

I have engaged with literatures that have been instrumental in addressing the research questions at hand in this study and have selected literatures that explore how Indigenous and non-Indigenous people bring their knowledges together around environmental issues as well as literatures that explore the processes and approaches to teaching in learning in contexts that bring together IK and WK.

Additionally, I have attempted to center the voices of Indigenous scholars and share their perspectives. The ideas of Indigenous scholars and practitioners have

provided a foundation for my understanding, which has also been bolstered by the work of other scholars.

Scholars have suggested the need for IK to move from the periphery to the center of academic discourses given the historical marginalization of IK within formal learning institutions (Dei, Hall, & Rosenberg, 2000). This critique has guided my reading of the literature and encouraged me to contribute to a growing effort to make space for traditionally marginalized voices within academia.

In their (2000) book, Indigenous Knowledges in Global Contexts editors George J. Sefa Dei, Budd L. Hall, and Dorothy Goldin Rosenberg highlight the need to bring IK from the periphery to the center, through broadening definitions of what constitutes ‘knowledge’ and by challenging commonly held definitions of ‘information’ and ‘knowledge’. As Goldin Rosenberg (2000) writes in the preface to the book,

our academic and political interests lie in developing multiple knowledge centers through shifts in knowledge production and use. We approach marginalized groups in the context of their own experiences and histories, with the goal of centring them as sources of knowledge rather than as sources of mere data. (Sefa Dei et al. 2000 p. xvi)

There are a number of non-Indigenous scholars who are contributing to this area of thought and their work is included in this review. I begin exploring the role of EE in addressing environmental challenges. Next, I introduce critiques of conventional EE and begin to describe responses to these critiques, particularly by focusing on IESS pedagogy. Then, I explore challenges in IESS pedagogy, including examining the relationships between Indigenous and western knowledges (Kimmerer, 2013) and critiques by Indigenous scholars around concepts of IK within academia and government. Then, I

address the calls that have been made for a different approach to EE and science education and knowledge interaction. This is done by investigating what needs to change in mainstream environmental education and by drawing upon descriptions of Traditional Indigenous education systems.

Then, I explore the work of critical theorists within EE literature to uncover issues in decolonizing EE, a critical component of creating equitable and ethical space for IK within IESS-type programming at formal academic institutions. Within this discussion I include literature that speaks to the term ‘decolonizing’, what it means and the issues surrounding the term ‘decolonize’. In closing the chapter, I include key insights from Transformative Learning Theory and literature as it pertains to IESS pedagogy. These literatures are related and support the backbone of this inquiry.

Role of Environmental Education

Environmental Education (EE) has emerged as one important element of addressing environmental challenges, alongside other approaches such as policy development, remediation and others mentioned above. The hope of EE practitioners is that having provided learners with particular skills and knowledge that they will then be equipped and motivated to act on behalf of our shared environment for the well-being of future generations and grow into environmental practitioners who devote their careers to effectively addressing environmental challenges (Johnson, Johnson, Sweeney & Williams, 2009; McCaffrey & Buhr, 2008; Pooley & O’Conner, 2000; UNESCO, 2009). In particular, I am interested in EE, which seeks to address cross-cultural contexts and takes up the calls within the field of EE to broaden beyond western science approaches to include other ways of knowing and in particular Indigenous Knowledge and ways of

relating to the natural world. Additionally, I am interested in EE approaches that make space for exploring colonialism and its connections to environmental degradation.

Contemporary EE programs are often informal and developed to engage people regarding their individual environmental behavior and to understand the content of environmental challenges (for example, understanding about concentrations and implications of greenhouse gases in the atmosphere), while more recently, programming has expanded with the goal of enabling learners to develop a kinship relationship with the natural world (Armstrong, 2010; Chawla, 2001; Tanner, 1998). With regard to formal EE programs at tertiary levels, programs often seek to encourage learners to find a role for themselves as environmental practitioners in the multitude of contexts described in the introductory chapter to this dissertation.

EE has developed into a distinct discipline and earlier theories regarding how to promote pro-environmental behaviours are now coming into question (Kelsey and Armstrong, 2012). For example, historically, EE practitioners have advocated a linear model that suggests sharing knowledge and information with learners will lead to attitude shifts, which will then motivate learners to act. EE research is beginning to show that providing educational content on environmental issues does not necessarily transfer to changes in attitudes and behaviours as previously thought (Kelsey & Armstrong, 2012). Instead, it has been shown that learners are often mired in negative emotions such as fear, guilt, and anger that leave them feeling hopeless and powerless in their abilities to create meaningful change in the world, which can impede their motivation to act or obtain employment in the environment sector (Kelsey and Armstrong, 2012). This suggests a need to rethink how and why EE is delivered.

At the same time, Indigenous scholars have illuminated the ways in which EE relies upon scientific modes of inquiry and can perpetuate colonialism and colonial ways of relating with one another (Longboat, Kulnieks & Young, 2013). For instance, Tuck, McKenzie and McCoy (2014) put forward the concept of land education and suggest that exploring settler colonialism and colonialism should be central to EE programming in order to illuminate underlying causes of environmental issues and support better relationships between Indigenous peoples and settlers. Exploring colonial ways of being, thinking and relating to the natural world and one another can begin to highlight the problematic values, attitudes and behaviours, which contribute to contemporary environmental challenges.

These scholars are suggesting that it is imperative to disrupt approaches to EE that do not explore the deeper causes of environmental issues and to look beyond the scientific data to the social, cultural, and political forces that also contribute to environmental destruction. Researchers and educators highlight the need to decolonize EE and to decolonize ourselves as part of the learning process and addressing environmental issues. This research explores how this can be done both within tertiary institutions and through other means, such as professional development training.

It is helpful next to explore some of the central critiques of EE and begin to explore the ways that scholars have suggested decolonizing and transforming EE to make space for Indigenous voices and perspectives.

Engaging Whole Learners

In searching for alternative models of EE, scholars and environmental educators have begun to advocate for approaches that engage “whole” learners, or in other words

engage the emotional, spiritual, mental and physical aspects of students as opposed to focusing solely on the mental component as has been done in more conventional, ‘content-heavy’ programming (Chawla & Cushing Flanders, 2007; Chawla, 1999; Kimmerer, 2013; O’Neill & Nicholson-Cole, 2009; Orr 1990; Pooley & O’Connor, 2000). The result has been the emergence of educational programs that are embedded in community contexts and sensitive to the emotional responses that can be triggered as a result of environmental learning and make space for Indigenous Knowledge and ways of knowing/relating (Armstrong, 2010; Evering & Longboat, 2013; Lane, 2010; Longboat, 1998; Rich, 2011). Such programs also recognize spiritual, psychological and social issues as root causes of environmental degradation and seek to make space for spiritual growth and understanding within programming.

Researchers are advocating for approaches that make space for Indigenous Knowledges (IK) and approaches in education to better engage the four components (mental, physical, emotional and spiritual) of learners (Lane, 2010; Nabhan & St. Antoine, 1993). Additionally, researchers highlight the importance of grounding EE in accurate historical understanding while making connections between environmental and social justice issues and space for rich dialogue in exploring these intersecting issues in the context of environmental learning (Evering & Longboat 2013; Tuck, McKenzie & McCoy 2014).

Creating Equitable Space for Indigenous Knowledge in Environmental Education

Yet, EE approaches that incorporate Indigenous voices and IK remain on the margin of EE programming and relationships between knowledge systems continue to be characterized as unequal and antagonistic (Briggs, 2013; Davis, 2011; Kimmerer, 2013).

Researchers engaged in these approaches suggest that working across Indigenous and Western cultures in environmental contexts is fraught with difficulty, including a lack of understanding of IK and Traditional Ecological Knowledge (TEK) and how to respectfully engage with Indigenous traditions and knowledges as well as the issues that arise when non-Indigenous practitioners are confronted with colonial histories (DiAngelo, 2011; Haig-Brown, 2010; Kimmerer, 2013; McGregor, 2004; Reagan, 2010; Simpson, 2004). At the same time, they indicate that new programs are developing EE curriculum that challenges the status quo, as Evering and Longboat (2013) explain “the emerging discipline of IES [Indigenous Environmental Studies] recognizes that Indigenous Peoples are dealing with, and disproportionately affected by, a growing number of inter-related issues affecting their cultures, communities, traditional territories and the environment at large.” (p. 242) Kimmerer (2013) builds on this to suggest that knowledge systems need to come together in order to address environmental issues, she writes

today, there are now many voices calling for indigenous knowledge, searching for answers to the problems created by the fortress built by science, assembled by the hands of runaway materialism. Facing crises of climate change and waves of extinction, western societies are beginning to look to indigenous knowledge, as a source of new models for sustainability, as these complex problems cannot be addressed by science alone. (p. 57)

Kimmerer (2013) writes about the need to cultivate relationships between knowledge systems in order to create space for respectful collaboration between Indigenous and western ways of knowing, particularly related to environmental crises. Therefore, enhancing approaches to EE to make space for IK, exploring connections

between history and environmental/social justice while engaging the mental, physical, emotional and spiritual aspects of learners emerge as critical considerations for university level environmental programming and for environmental practitioners to engage as they work toward addressing environmental challenges beyond graduation.

Scholars and practitioners have been working through these ideas and exploring the ways that EE and other disciplines (for instance the western sciences) can make space for IK. Through their work, authors have suggested various metaphors for thinking about how knowledge can come together, including Kimmerer's (2013) garden metaphor and Evinger's (2012, 2017) constellation metaphor. Other scholars have conceived of knowledge exchange and sharing as comprising 'border crossing' between knowledge systems, which they suggest can be difficult for learners (Aikenhead & Jegede 1999; Sutherland & Henning, 2009). These will be explored in greater depth later in this chapter.

One response to this growing recognition among researchers and educators is a community of practice and research at Trent University that seeks to engage the breadth and complexity of teaching and learning about environmental issues in a way that makes equal space for Indigenous and Western knowledges. At Trent, the Indigenous Environmental Studies and Sciences (IESS) program aims to engage both Western Knowledges and Indigenous Knowledges in understanding and addressing environmental concerns. Similar to the creation of the discipline of biochemistry, which brought together the distinct disciplines of biology and chemistry, IESS seeks to identify and bring together key elements from both Western Knowledges (WK) and Indigenous Knowledges (IK) to better understand and address environmental challenges while

maintaining and recognizing the integrity of each knowledge system (Evering & Longboat, 2013). IESS approaches this engagement between WK and IK with the acknowledgement that there is diversity, variation and multiple subsystems within both WK and IK systems.

IESS Pedagogy at Trent University

IESS pedagogy utilizes innovative approaches to education that engage students as whole learners who explore environmental challenges holistically by recognizing and making space for physical, mental, spiritual and emotional considerations. IESS developed and utilizes a Biocultural Framework (figure 2) as one means of thinking about how to engage learners. The Biocultural Framework is used in the introduction to Indigenous Environmental Studies and Sciences course to explore the interaction between worldviews and the environment and what is presented here comes from my experiences as a teaching assistant in the course, working in close collaboration with Dr. Longboat who uses this concept to support learners in exploring their own and others' worldviews.

Rather than focusing solely on information (content), IESS programming recognizes that learners are embedded in cultural contexts, which form the basis of their belief and value systems. Through understanding one's own (or another's) beliefs and values (or worldview), we can begin to understand our own (or another's) and the attitudes and behaviours, which are the manifestations of their values and beliefs (Evering and Longboat, 2013). In my experience teaching in the IESS program at Trent University, the Biocultural Framework is used as a tool for learning about oneself, for critiquing dominant cultural systems, for understanding cultures that may be different from our own and for getting to know students.

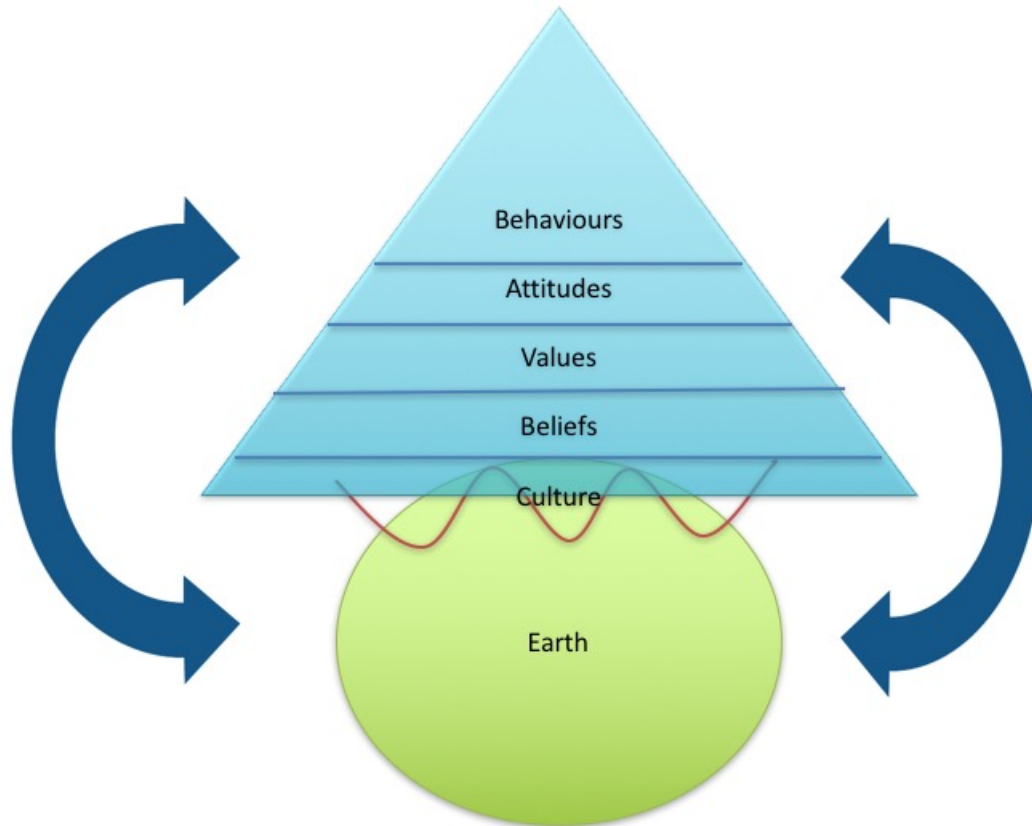


Figure 2: The Biocultural Framework

The Biocultural Framework is also used as a tool for exploring the impacts of various activities/actions on the environment. The arrows in the diagram correspond to the impacts of human behaviours whereby negative behaviours cause negative impacts in the natural system, which can have a cumulative effect. For example, burning fossil fuels and emitting greenhouse gases leads to global climate changes or composting generates richer soil and greater soil diversity. Figure 2 shows that culture is inextricably linked to the land and that our cultural beliefs and values are linked to the places we originate. The Biocultural Framework provides a tool for discussion with students and a framework for them to begin to engage the critical self-reflection work, which is an essential component of IESS pedagogy and a tool to explore the relationships between cultural and biological

systems. Through this lens learners build an understanding of the differences/similarities between worldviews and can explore the implications of their own beliefs, values, attitudes and behaviours on the natural world.

This new discipline along with its emerging pedagogy, are in their infancy and many questions remain as to how to best facilitate the unique learning that takes place in IESS (Rich, 2011). The learning is unique because of the focus on the ‘whole’ learner but also because of the cross-cultural nature of both IESS curriculum and multicultural students in IESS classrooms. IESS courses typically comprise a mix of Indigenous and non-Indigenous learners from diverse cultural backgrounds, meaning that students are practicing cross-cultural collaboration, while they are learning how to do it. The experiential nature of IESS programming means that learners are engaged in both Indigenous Knowledge systems and Western Knowledge systems as part of their learning and that they will inevitably confront the practices/approaches of knowledge systems that are different from their own. The students work through this in facilitated dialogue and group work as well as through their personal assignments and readings.

Educators and practitioners are still defining the diverse skill sets that will characterize graduates of these programs and how best to impart the skills, values and approaches necessary, while also engaging in inquiry into all aspects of the current environmental crisis, including the spiritual and emotional aspects of these issues. Expanding upon the pedagogy to further articulate the skills, values, knowledge and approaches necessary for effective cross-cultural environmental collaboration is a central component of this study.

Challenges in IESS Pedagogy

Aikenhead and Jegede (1999) as well as Aikenhead (2001) have provided an additional critical insight into the teaching and learning of science with both Indigenous and non-Indigenous learners and have articulated the need for educators to assist learners in navigating the “cognitive conflicts” that occur when students begin to learn science, which can be “like a foreign culture to them” (Aikenhead & Jegede 1999, p. 269), therefore, the authors suggest the need to develop culturally sensitive curricula and teaching methods to ease the difficulties students experience when they enter into science culture. This is relevant to all IESS students as for some learning to use scientific tools is new, whereas for others, learning about IK is new, therefore all the students need to develop “cognitive flexibility”. Cognitive flexibility refers to the ability of students to be able to move consciously between multiple different concepts, approaches and knowledge systems while also making space for plurality in their thinking (for example, holding two potentially contrasting views simultaneously or acknowledging that what is ‘true’ for one may not be for another). It is necessary within an IESS pedagogy to further articulate what this looks like, especially in concert with the wider needs already identified in this area. It is important to note here, that identities and worldviews are not understood as dichotomies, but rather, as with knowledge systems, are overlapping and may share elements, while also being comprised of differences.

In reading the work of Indigenous scholars, such as Gregory Cajete, Vine Deloria, Marlene Brant Castellano and others, it is clear that Indigenous Knowledges and approaches have much to offer educators, in particular, those seeking to bring together IK and Western knowledge systems in their classrooms. However, with this potential comes also the possibility for cultural and knowledge appropriation, misrepresentation of

Indigenous peoples and their nations, and further perpetuation of colonial approaches to engaging with Indigenous Nations. As with the relationship between the Canadian State and Indigenous Nations, the relationship between Academia and Indigenous peoples has a long and rocky history. It is critically important for those of us working in IESS contexts to work against extractive approaches to teaching and learning and to ensure IESS pedagogy is mindful of the needs of all our students as well as the discipline of IESS overall.

It is essential for non-Indigenous peoples working in these contexts to be well-informed about the history and dialogues they are entering into when they come together to address environmental issues. Unfortunately, many settlers in Canada do not know about colonial history because these stories have been hidden, denied and remained on the margins (Razack 2002, Reagan 2010). As Razack (2002) writes, “In North America, it is still the case that European conquest and colonization are often denied, largely through the fantasy that North America was peacefully settled and not colonized” (p. 2). Canadian denial of the historical colonization and on-going impacts of settler colonialism is a central obstacle to cross-cultural collaboration, which speaks to the importance of sharing this knowledge with IESS learners as well as through professional development training for government and industry representatives. Non-Indigenous peoples working in government, industry, the not-for-profit sector, or in communities need to see the relevance of these asymmetrical power relations to their own work and contexts. It is imperative that settlers come to understand “how structures and ideologies of settler colonial narratives and power function together economically and politically, domestically and globally, to maintain unequal hierarchical relations over Indigenous

peoples” (Wallace 2013, p. 21) while working to eliminate this asymmetrical and antagonistic relationship. Therefore, another central component of IESS pedagogy is illuminating and exploring power relationships and dynamics in these contexts and to create equitable space for IK and WK and multiple knowledge systems to collaborate.

Relationships between Knowledge Systems

Kimmerer (2013) frames the interactions between knowledges systems as relationships, which can inform the ways knowledge systems come together in cross-cultural environmental work. This section will explore the relationship between IK and WK with respect to environmental decision-making in Canada and in the particular context of relationships between IK and the WK in the academy. This section presents critiques to conceptions of IK by non-Indigenous practitioners, explores definitions of IK and TEK and summarizes some of the metaphors and approaches to thinking about knowledge interaction that have been shared in the literature.

Simpson (2004), McGregor (2004 & 2009) and Kimmerer (2012) identify the growing interest and support for considering TEK in environmental decision-making in Canada. Stemming from international statements and agreements, for example, the United Nations (UN) (1992) *Convention on Biological Diversity*, Canadian leaders have begun to make space for Indigenous knowledge within environmental decision-making frameworks over the past two decades (McGregor, 2009). Simpson (2004) explains that initially, Indigenous peoples were heartened by the recognition on the part of Canadian governments and policy makers that Indigenous ways of knowing have much to offer in finding solutions to environmental challenges. Indigenous peoples saw this as an opportunity to assert their rights and to Indigenize environmental thinking and policy

(Simpson, 2004). However, both authors point to serious issues in non-Indigenous engagement with TEK systems.

Simpson (2004) explains, “interactions around TEK and resource management, conservation, sustainable development, and biodiversity have become important sites of resistance and mobilization for Indigenous Knowledge holders and political leaders” (p. 374). This is because “much of the academic literature regarding TEK has focused on how to define it, why it might be useful to scientists, and how to integrate it into Western scientific frameworks to facilitate environmental management” (Simpson, 2004, p. 374). Simpson (2004) further articulates that academic literature focuses on the loss of Traditional Knowledge, without a critical analysis of why Indigenous knowledges are threatened in the first place. She urges readers to confront the impacts of colonization (for example, cultural genocide and colonial policies), which have dislocated Indigenous peoples from their lands and threatened TEK. Simpson (2004) asserts, “Recovery of Indigenous self-determination and the recovery of Indigenous national territories are crucial elements for the renewal of Indigenous Knowledge, and although Indigenous people have articulated this argument repeatedly, it is also absent from the literature around TEK.” (p. 375)

The lack of recognition of the impacts of colonialism on IK is identified as a depoliticizing of Indigenous peoples in order to make discussion of TEK more comfortable for non-Indigenous scientists and decision-makers (Simpson, 2004). To me, it also reflects a lack of understanding of IK systems and their deep interconnectedness with place (McGregor, 2009). This is one key area where EE programs can begin to

unpack Western assumptions about knowledge generation and IK in IESS-type programming.

Depoliticizing TEK also contributes to a decontextualization of the knowledge system as the scientists and decision-makers who are ‘using’ the knowledge are doing so without engaging with the people who “own and live that knowledge.” (Simpson, 2004 p. 376; Simpson 2011). This decontextualization is also problematic, as IK systems are place-based and lose meaning when they are removed from the contexts in which they were generated (Simpson, 2011). By avoiding discussion of issues central to TEK and the threats to TEK (for example loss of access to traditional territories and impacts of the residential school system and loss of language), non-Indigenous practitioners are contributing to settler denial about Canada’s history and in so doing are hindering the potential for a deeper understanding and effective collaboration. As Cannon (2012) states, “the refusal, or perhaps inability, to mark and name this history continues to be one of the most formidable challenges facing settler-Indigenous collaborations in the twenty-first century” (p. 22).

Defining Traditional Ecological Knowledge

McGregor (2004) illuminates issues with how non-Indigenous scholars are defining and interacting with IK and TEK. She explains that as Indigenous peoples conceive of their knowledges, IK “cannot be separated from the people who hold and practice it, nor can it be separated from the land/environment/creation. Furthermore, IK does not lend itself to being fragmented into various discrete categories,” (McGregor, 2004, p. 390-391). These scholars suggest that rather than seeking to understand

Indigenous conceptions of IK, scientists and decision-makers are developing their own definitions and conceptions of IK.

Van Damme and Neluvhalani (2004) write, “some seem to hold the view that indigenous knowledge is best defined or explained by contrasting it with western knowledge or with science as though indigenous knowing lacks scientificity” (p. 363) The authors go on to suggest that science was never uniquely western and that examples of scientific approaches and thinking can be found in IK systems around the globe. It is deeply troubling that many in power (whether in government, the academy, or elsewhere) have taken an approach of defining for themselves what constitutes Indigenous Knowledge, which reflects a continued perpetuation of colonial approaches to working cross culturally and the maintenance of a ‘power over’ relationship between Indigenous and non-Indigenous peoples (Van Damme & Nleuvhalani, 2004). As Van Damme and Neluvhalani (2004) assert,

many have fallen into the dangerous trap of uncritically dictating the terms of what indigenous knowledge involves... These kinds of appropriation at international, national, and local levels have further contributed to the distortion of local ways of knowing. Within their institutional frameworks and mandates, schools, colleges and universities tend to treat knowledge as objective and universal, rather than relative, tacit and contextual. (p. 363)

This speaks to the importance of collective understandings of what constitutes Indigenous Knowledge and the need to ensure that definitions of IK are not adopted uncritically, but rather, that understanding is built through relationship with Knowledge Holders to set the stage for respectful collaboration. These authors show that misunderstanding at any level can lead to cultural appropriation and distortion of IK systems. Recognizing and disrupting who has the power to define what constitutes IK or TEK, particularly by

centering Indigenous voices in these dialogues and restoring power to Indigenous peoples over their own knowledges is an important element of engaging cross-culturally and ensuring that cross-cultural processes do not negatively impact on Indigenous peoples or their knowledges. It is also essential to ensure that collaborative practitioners are not 'extractive' in their approach to working with IK systems (Smith 1999). 'Extractive' relates to ways of relating between knowledge systems where one partner takes knowledge without properly attributing it, compensating for it, or reporting back to Knowledge Holders (Smith, 1999). This also speaks to the importance of who drives collaborative processes and knowledge sharing as well as who 'owns' the information that emerges from collaborative work. Being clear about how knowledge is shared and protected are key factors in designing respectful knowledge sharing projects.

McGregor (2004) provides insight into how Indigenous peoples define IK and suggests that IK is multifaceted, cumulative, and reflective of the belief that people, knowledge and land are an integrated whole, IK is lived, rather than studied and is connected to spirituality and culture. TEK is regarded as a subset of IK, which also cannot be separated from the people who hold it (McGregor, 2004). Kimmerer (2002) argues that TEK exists all over the world, is not unique to the Indigenous nations of Turtle Island (North America), but that "it is born of long intimacy and attentiveness to a homeland and can arise wherever people are materially and spiritually integrated with their landscape" (p. 433).

In contrast to Indigenous understandings of IK and TEK, McGregor (2004) explains that non-Indigenous peoples have defined TEK as the knowledge Indigenous peoples have about their natural environment. This simplified understanding echoes the

objectification and universalization of IK that Van Damme and Neluvhalani (2004) caution against. This discussion highlights the lack of consensus within academic literature regarding the definition of TEK; McGregor clarifies, “Non-Aboriginal peoples’ views are not necessarily wrong, just incomplete and fragmented.” (p. 395) However, as the insight from Simpson (2004) illustrates, this incomplete and fragmented understanding of TEK brings with it the peril of perpetuating colonial approaches to environmental policy, decision-making and collaboration. Such peril stands in the way of reconciliation, healing past wrongs, and building better relationships for the future, which also indicates the need for increased education among environmental practitioners about colonial history, how to respectfully engage IK and TEK and Indigenous Knowledge Holders. These considerations are already central components of IESS curriculum, but these lessons need to be made accessible beyond the university walls to better inform non-Indigenous practitioners working with IK, for example, those in government or industry through professional development training.

Another challenge related to non-Indigenous interaction with IK systems revolves around using IK to validate western scientific understandings. As Weiss, Hamann and Marsh (2013) write, “IK is often compared to Western science to test its ability to corroborate scientific knowledge, and is typically considered a secondary choice for knowledge when quantitative scientific information is unavailable” (p. 287). Weiss, Hamann and Marsh (2013) identify a central issue where IK as seen as an ‘add-on’ rather than a foundational or central component of curriculum or research.

Weaving Traditional Ecological Knowledge into Science Education and EE

Indigenous educators have discussed the need to “weave” together TEK and science education (Bartlett, Marshall & Marshall, 2012; Kimmerer 2012; Moore, 2012). The metaphor of weaving is employed to support the idea that knowledge systems remain individual and intact as they work in collaboration. In recognizing the centrality of environmental issues to Indigenous peoples, Robin Wall Kimmerer (2002) argues, “college biology graduates have a high probability of encountering issues involving indigenous cultures and TEK.” (p. 432) Yet, the majority of scientific professionals and educators “have little understanding of the value of TEK or its cultural context” (p. 432). Davis (2011) also outlines the rocky and difficult collaborations and relationships between those working in the not-for-profit environment sector and First Nations, which add further support to the need for formal environmental education programming as well as professional development with those in the environment sector around what constitutes respectful collaboration with Indigenous Nations in a Canadian context. Knowing the broad educational backgrounds of individuals in the environment sector, this means that IESS-type approaches and knowledge needs to be shared beyond students learning biology or chemistry, but also those in environmental studies, natural resource management, forestry, and other related programs.

Kimmerer asserts that educators have a responsibility to prepare their students to participate in multicultural contexts when they enter the workforce, which must include “serious discussion” about how to protect TEK from exploitation (Kimmerer, 2002 p. 437). Kimmerer (2002) instructs, “The identity of practitioners, informants, and the community should always be fully referenced and acknowledged with the same diligence that scientists apply to the contributions of their academic colleagues.” (p. 437) This is

often referred to as a ‘genealogy of knowledge’ or ‘knowledge lineage’ and in acknowledging the origins of knowledge in IESS students are encouraged to see themselves within a greater context and project of knowledge generation, sharing and interaction with all the benefits and potential peril that may bring (Absolon 2011, p. 131).

Environmental practitioners working with IK and students in IESS-type programs alike need a thorough understanding of the risks associated with sharing IK and sacred teachings and means of protecting against those risks, while at the same time, becoming familiar with the nuances of IK systems to be able to appreciate the knowledges that may be shared with them. As Kimmerer (2012) notes, “we are collectively looking for the right and responsible ways to weave TEK into our education, research, and practice, trying to find a path through a profoundly new educational landscape for mainstream universities” (p. 318). This dissertation will provide a framework to begin to address how we can bring together multiple knowledges, with a focus on IK, TEK, and WK at the post-secondary level and in other contexts as well (for example professional development training with government).

Kimmerer (2002) suggests that the inclusion of TEK will contribute to intellectual diversity and enhance ability to adapt to environmental change. She indicates that including TEK in science education can contribute to decolonizing, “The scientific richness of the oral tradition forces scientists to confront assumptions concerning the validity of this traditional information, which has typically been marginalized by scientists.” (p. 434) Kimmerer (2002) writes, “The exercise of examining environmental relations from a cross-cultural perspective not only deepens awareness of another culture but also provides mainstream students with insights into the cultural assumptions

underlying their own intellectual tradition of Western science and technology.” (p. 435) Therefore, weaving TEK with scientific learning provides multiple benefits to learners, which will enable them to conduct their work respectfully once they embark on a career in the sciences or environment sectors while also deepening the critically important self-reflection work that is a central component of IESS pedagogy.

At the same time, educators must be aware of “the risks of misappropriation of knowledge, intellectual property, and decoupling of knowledge from its attendant responsibilities” (Kimmerer 2012, p. 319). Therefore, when thinking about weaving knowledges together, it is vital to ensure that Indigenous Knowledge Holders’ knowledge sharing protocols are respected and followed while being aware that sharing content from IK systems with students may not be as important as “opening their awareness to different cultural assumptions,” (Kimmerer 2012, p. 319). Therefore, programming should place a greater emphasis on understanding worldviews (one’s own and others), how to facilitate bringing diverse Knowledge Holders together in environmental collaborations and the implications different systems of thought may have on finding solutions to environmental challenges than on teaching the content of IK systems. This exploration can move beyond IK and WK to the inclusion of knowledge systems from everyone in the room and global cultures.

In IESS programming, Elders and Knowledge Holders share Traditional Knowledge and stories as a means of both learning about Indigenous thought, philosophy and the environment while also engaging in exploration of worldviews (Indigenous and Western). Rich (2012) points out that “many students are largely unaware that other knowledges even exist” (p. 312) therefore, in many IESS programs the starting point with

entry level students is building an understanding of knowledge systems in general, getting to know one's own knowledge system, critiquing dominant systems, becoming aware that 'other' knowledge systems exist and over the course of study in a 4-year degree programming bringing students to a place where they have proficiency to move and facilitate sharing between knowledge systems and have developed the cognitive flexibility needed to move between them seamlessly.

Dawn Sutherland and Denise Henning (2009) have developed a framework that integrates western science into traditional Indigenous education approaches. Sutherland and Henning's approach is refreshing as it turns the question of how to include IK within science programs into a question of how to fit western science into an existing framework of Indigenous education. Sutherland and Henning identify four components, resulting from data collection with fifty science teachers, consultants and administrators from urban, rural and First Nations communities in Manitoba. The four components are: Elders, language, culture and experiential learning (Sutherland & Henning, 2009). Sutherland and Henning's model specifies that the process of coming to know is as important as the knowledge itself and suggests a life-long learning framework that is in keeping with Cajete's (1994) descriptions of Indigenous education (see below in this chapter). Sutherland and Henning (2009) explain that their framework embraces a pedagogy of place that shifts the emphasis from teaching about a local culture to teaching through a local culture, where students are able to see themselves within the context of place. Moore (2012) also supports the need for experiential learning in contexts where IK and WK come together and suggests using hands-on, project-based learning to engage learners in these two knowledge systems.

Julia Lane (2010) identifies issues with incorporating Indigenous traditions and knowledges within EE programs, especially those programs that only do so in a superficial way. Lane's work highlights the importance of including Indigenous peoples in the delivery of programs that seek to engage with IK. In her research, she identifies the difference between culturally appropriate (which is an inclusion of IK) and culturally inherent, which takes place when EE teachings stem from Indigenous pedagogies and philosophies (Lane, 2010). Lane advocates for embodied environmental education and highlights the potential for theatre to serve as an entry point for bringing IK into EE (Lane, 2010). However, she also acknowledges that role-play that involves IK can be and has been problematic in the past, especially when superficial representations of Indigenous cultures leads to the perpetuation of racist stereotypes (Lane, 2010).

Bartlett, Marshall and Marshall (2012) as well as Hatcher (2012) outline a framework for bringing together Western Science and Indigenous Knowledge known as the "Two-Eyed Seeing" model. In this model, learners are grounded in both Western Science and Indigenous Science and can "uniquely combine the two in various ways to meet a challenge or task at hand. In the context of environmental crises alone, a combination of both seems essential" (Bartlett, Marshall & Marshall, 2012, p. 331). Bartlett et. al (2012) explain that the process involves including recognized Elders and Knowledge Holders as well as experts in western knowledges in programming in explicit ways. This approach trains learners to tune their mind to two places at once and to continually look for additional perspectives to add richness to their approaches in environmental collaboration (Bartlett, Marshall & Marshall, 2012).

Conceptualizing Knowledges and Bringing Knowledge Systems Together

Sutherland and Henning's (2009) article frames the movement between science and IK as a border crossing experience as has been suggested by other scholars (for example, Aikenhead & Jegede 1999). This approach is in contrast to Evering's (2012, 2017) work, which suggests that educators move away from distinguishing between knowledge systems in a way that suggests they are strict dichotomies, a perspective that is identified as problematic by other scholars. As Laurie Anne Whitt (2004) explains, "I hasten to emphasize the diversity and non-unitary character of both 'Indigenous' and 'Western'. There are differences within, and similarities across Western and Indigenous knowledge systems which confound any attempt to cast the contrast as a simple dichotomy." (p. 190). Van Damme and Neluvhalani (2004) agree, "there is often an assumption that IK and 'modern scientific knowledge' acquired through formal education are separate and parallel entities and therefore are often regarded as independent of each other instead of complementary or related." (p. 366) Moreover, scholar Leroy Little Bear (2009) writes, "No one has a pure worldview that is 100 percent Indigenous or Eurocentric; rather, everyone has an integrated mind, a fluxing and ambidextrous consciousness, a pre-colonized consciousness that flows into a colonized consciousness and back again." (p. 85)

Dei (2000) suggests, "a falsely dichotomous thinking between 'Indigenous' and 'non-Indigenous' knowledges can be avoided by understanding that the 'past/traditional' and the 'modern' are not frozen in time and space." (p. 120) Additionally, it is important to note that definitions and understandings of IK vary from Indigenous nation to Indigenous nation, it is crucial in cross-cultural collaboration to work closely with everyone involved to understand what IK means in the context in which you are working.

Evering (2012) provides an alternative way of conceiving of knowledge systems and moving beyond ideas of integrating one system into another and rather toward ‘interaction’ of knowledge systems. She urges thinkers to move away from an approach where different knowledge systems are seen as separate ‘containers’, completely distinct, or in a hierarchical relationship. Rather, she suggests that thinkers approach knowledge as a spectrum, constellation or assemblage (Evering, 2012). Evering writes, “an individual’s or a group’s knowledge space is in flux and can change sometimes deliberately to incorporate new components or elements.” (p. 365) Furthermore,

This thinking allows me to constellate the elements in my knowledge space or assemblage. The constellation of an individual or group (whether a culture, a discipline or a community) is unique and in flux. In considering various constellations, some elements or stars may be shared, similar or different. (p. 365) When we begin to think of knowledge in this way, we can look for ways of adding diversity to our own constellations (or those of our students) or working with individuals who have complementary constellations to provide a diversity of ontologies, epistemologies, methodologies and axiologies in order to deepen our understanding and arrive at innovative solutions to environmental issues.

Traditional Indigenous Education

Gregory Cajete’s (1994) *Look to the Mountain: An Ecology of Indigenous Education*, describes what he refers to as Traditional American Indian education, critiques contemporary American education and advocates for a reconceptualization of education systems. Cajete (1994) argues that while American education has led to “spectacular scientific and technological achievement” (p. 25) that it has also resulted in “widespread environmental devastation and widespread exploitation of human and

material resources worldwide” (p. 25). He argues that education is in crisis and that there is an urgent need to find new ways of teaching and learning that can enable human beings to depart from their destructive relationship with the natural world. Cajete (1994) proposes that Traditional Indigenous education systems can provide a model for educational reform that “forge educational processes that *are* for Life’s sake and honor the Indigenous roots of America” (p. 27).

Cajete contrasts American and Indigenous educational systems and describes traditional Indigenous education in great detail. I view American education as a component of Western education, which can be seen to encompass modern education in Canada, the United States and elsewhere in the Western world. These ‘mainstream’ or dominant educational systems are rooted in and influenced by colonialism, capitalism and other Western constructs. Other western constructs that heavily influence education include competition, individualism, a focus on memorization over critical thinking, a belief that knowledge can be generalized and applied across geographies, a focus on pre-determined learning outcomes that are explicitly linked to the economy, a focus on the material world over spiritual or emotional realms, a belief in human beings as being separate from nature and others.

According to Cajete, Indigenous education is founded on a sacred view of nature, which permeates teaching and learning; it focuses on integration and interconnectedness; mutual reciprocity; it recognizes and incorporates the principle of cycles within cycles; it is focused on experiential learning; it recognizes levels of maturity and engages people at all stages of their life; it is connected to place; and its purpose is to teach a way of life that sustains both the individual and community (p. 29). According to Dan Longboat,

Indigenous educational practices and approaches find their foundations in the Traditional teachings and spirituality of a given nation, which are central to the process of teaching and learning from an Indigenous perspective (Longboat, 1998).

Cajete suggests that Traditional Indigenous Education can be seen as an original form of EE, which indicates that traditional Indigenous education values can form a solid foundation for EE program development. The description of Traditional Indigenous Education provided here only begins to skim the surface of Cajete's description, however the traits mentioned above are instructive for seeing the gulf between contemporary Western and Traditional Indigenous education systems. The descriptions are similar to the kind of education EE scholars have been calling for as well, suggesting that Traditional Indigenous Educational approaches provide another potential entry point for bringing together knowledge systems (Orr, 1990).

I think there are many "shared stars" (Evering 2012, 2017) between the approach Cajete describes and the "best practices" that have emerged from within the field of EE. However, there are significant differences as well. Although this is not universal, EE tends not to engage with a spiritual dimension to learning in keeping with general approaches to western education described above in this section. Often EE focuses primarily on content and scientific analysis. However, this focus on content has also been shown to result in negative outcomes such as feelings of hopelessness, fear, guilt and anger (Kelsey and Armstrong 2012). Another difficulty is that EE is relegated to something that happens only rarely within Western education systems, as with IK, it is not forming a foundation of educational approaches within contemporary educational contexts.

Cajete's work casts light on issues that have been illuminated by other scholars as well, such as the need to rethink teacher-learner relationships (Armstrong 2010; Rich 2011). In adopting an Indigenous educational approach, the hierarchy between teachers and learners needs to be rethought toward a framework in which both the educator and student are seen as learners engaged in a lifelong learning journey together. To bring Traditional Indigenous Education to the fore, the physical context of education would need to be reevaluated and perhaps shift to a context where the bulk of student learning does not take place in a school isolated from the community, but rather learning would be embedded in the community and connected to the natural world. These changes also support the calls above in creating curriculum that privileges experiential and project-based learning and other approaches to knowledge transmission embedded within IK systems.

Cajete's writing provides a powerful call to action to rethink the structure, function and output of modern education toward a more holistic, nurturing, and life-sustaining system of learning that engages the whole community in an on-going learning process. In the context of the current ecological crisis, such an approach is not only desirable, but also necessary and with the appropriate elements articulated and enacted, can form a firm foundation from which IESS pedagogy can be built.

Decolonizing/Unsettling

The decolonization movement has been engaged in dismantling and resisting on-going colonial forces over hundreds of years. However, more recently, Indigenous scholars have begun to articulate what decolonization is and looks like, particularly from within western academia. Indigenous Nations have been resisting the impositions of

colonial governments, which have been achieved through various laws and decrees (such as the Royal Proclamation and the Indian Act) and working to maintain and protect their governance structures, languages and practices for hundreds of years. Decolonization has emerged as a response to the attempt of non-Indigenous governments to assimilate Indigenous peoples into a broader Canadian culture through various means, including the creation of the reserve system, the imposition of non-Indigenous government systems on reserves, the residential school system, the creation and enforcement of unjust laws that prohibited traditional practices and languages from being used, among other attempts to control and subdue Indigenous Nations. Scholars have articulated processes for decolonizing that relate to individual, community and national levels.

Generally, decolonizing entails a cyclical process of illuminating the unseen assumptions that individuals and societies hold, looking back at historical events and analyzing the dominant and counter narratives, mourning the past, dreaming for the future, and committing to action and a way forward that discards the assumptions and ways of being that perpetuate injustice and assimilation with the dominant culture (Gruenewald, 2008; Lenui, 2008; Simpson, 2011). Decolonizing can take place at multiple levels including the individual, the family, the institution, and the national level. In this work, the focus on decolonizing and unsettling is on the self (among environmental practitioners and educators who work with IK and WK as well as learners with IESS-type programs) and the institution (educational programs at tertiary institutes) and at the national level.

Tuck and Yang (2012) urge thinkers in this area to be aware that decolonization is not a metaphor, yet as decolonizing discourses have been taken up within educational

realms, that “one trend we have noticed, with growing apprehension, is the ease with which the language of decolonization has been superficially adopted into education and other social sciences” (p. 2) while ignoring the real struggles Indigenous peoples are engaged in with respect to sovereignty and self-determination. At the same time educators and scholars meet to discuss decolonizing curriculum and classrooms, what is left out of the discussion are the on-going impacts of settler colonialism in North America and elsewhere (Tuck & Yang 2012). The authors suggest that “the easy absorption, adoption, and transposing of decolonization is yet another form of settler appropriation” which re-centers whiteness and settler agendas (Tuck & Yang 2012, p. 3). Alarming, these critiques mirror the discussion above with respect to engagement between settlers and IK. In recognizing these challenges, it is important to ensure that Indigenous thought and critiques of settler colonialism are not made invisible, but rather form the foundation from which decolonizing is explored.

As with learning about troubling environmental issues, this work can induce a variety of emotions, which can be difficult for learners to process. Settler guilt and denial are common emotional responses that non-Indigenous learners engaged in active decolonizing frequently confront while Indigenous anger and retribution are also frequent (Regan, 2010). An essential component of this approach to IESS-type learning will be to make space for, recognize and resolve these emotions and to develop modes of addressing and working through them to ensure that learners do not embark on a journey that they never complete. Boler and Zembylas (2003) suggest that by closely examining one’s “emotional reactions and responses—what we call emotional stances—one begins to identify unconscious privileges as well as invisible ways one complies with dominant

ideology” (p. 108). Thus, exploring the emotional responses of learners become central to the learning and transformation process. In IESS, a key focus of this is to nurture learner capacity to be uncomfortable, to recognize that one may hold multiple truths simultaneously and to create an ability to engage with content that requires learners to deeply question themselves and their positionality. “A pedagogy of discomfort recognizes and problematizes the deeply embedded emotional dimensions that frame and shape daily habits, routines and unconscious complicity with hegemony” (Boler & Zemblyas 2003, p. 108). An element of complexity in IESS contexts, is that as we engage with unsettling and decolonizing, we are practicing cross-cultural communication because the learners in our courses come from diverse cultural locations. This study will contribute to an understanding of how IESS pedagogies can aid in decolonizing processes for both Indigenous and non-Indigenous learners.

It is important to recognize that this work is necessarily unsettling and uncomfortable (Barker, 2010; Regan, 2010). As Barker (2010) writes, “decolonization, on any scale, cannot be motivated by an effort to maintain as much comfort or privilege as possible; given the nature of hierarchical oppression, confronting oppression requires that some individuals within the hierarchy will have to make significant sacrifices” (p. 322). Tuck and Yang (2012) write that simply paying “attention won’t get anyone off the hook from the hard, unsettling work of decolonization” (p. 4). In fact, they assert that decolonization is not complete until lands are returned to Indigenous nations (Tuck and Yang, 2012). Acknowledging the centrality of discomfort to this type of learning resonates with Transformative Learning (TL) theory, which suggests that discomfort and

disorientation are essential starting points for self-reflection and personal transformation in the learning process (Mezirow 2009).

Robin DiAngelo (2011) identifies the difficulty in engaging learners, particularly white students, in discussion about racism and privilege, central themes in IESS course work. She writes, “common white responses include anger, withdrawal, emotional incapacitation, guilt, argumentation, and cognitive dissonance (all of which reinforce the pressure on facilitators to avoid directly addressing racism)” (p. 55). Montgomery (2013) agrees and points to the central response of denial or disbelief,

getting racialized whites (and, as well, able-bodied, middle-class, and heterosexual men) to simply acknowledge their privilege and power continues to be a huge challenge... An even greater challenge is to facilitate an understanding... that such power has not been accrued via egalitarian and meritocratic means and moreover, that white supremacy also procures and bestows power, privilege, unfair advantage, and benefits.” (p. 3).

Understanding that such responses are common and can be expected is helpful for educators in preparing a learning environment and approach to dialogue at the outset that supports learners in moving through this subject matter in a transformative way. Prior to reading DiAngelo and Montgomery’s work, I was often taken aback by our non-Indigenous students’ responses to topics of racism and privilege in the classroom. However, in recognizing that these are common responses, we can create spaces for students to speak freely, but also ensure they do not turn away from the subject matter.

Paulette Regan (2010), in her book *Unsettling the Settler Within* writes about the necessity of addressing colonial injustice and examining myths in the context of Canadian history (such as the myth of Canadians as benevolent peacemakers). The

dominant cultural narratives in Canada have led to a state where many Canadians do not know about or understand the implications of their colonial history, which has led many Canadians to perpetuate colonial policies, assumptions, and injustices (Regan, 2010). In contrast, counter narratives and stories that relate to the experiences of Indigenous peoples in the building of Canada have been actively suppressed, which has also contributed to widespread belief in the myths Canadians have been told (Regan, 2010). Cannon (2012) identifies challenges in exploring these Canadian myths,

one obstacle in doing this work involves upsetting people's investment in seeing Canada as a fair, generous, and tolerant nation. A far greater challenge comes with asking white settler and diasporic peoples to consider and transform their own investment in and relationship with colonialism (p. 21).

Therefore, unsettling challenges fundamental beliefs Canadians have about themselves, which is a difficult but necessary process of learning in this pedagogy.

Reinsborough and Barndt (2010) question the use of the term 'decolonizing'. They write, "while acknowledging and addressing the context and enduring effects of colonialism are positive steps towards healing and renewal, using terms like 'decolonizing' or 'postcolonial' runs the risk of re-centring colonialism. If we are seeking to transcend the colonial mentality and re-envision relationships, then what does a term like 'decolonizing' do to the struggle?" (Reinsborough & Barndt, 2010, p. 161). This thinking echoes the concerns laid out by Tuck and Yang (2012) that when settlers take up the discourses of decolonization, they are doing so to feel more comfortable as settlers and as a 'move to innocence' rather than to support Indigenous struggles for self-determination. This is an important question to reflect upon and the authors urge practitioners not to lose sight of whose struggles the term seeks to address as usage of

‘decolonizing’ gains currency. At the same time, given the ongoing denial of colonialism within the dominant culture in Canada, I believe that naming colonialism (and decolonizing) remains important in some contexts.

As Cannon (2012) notes, “in Canada it is routine to think about colonialism as having little, if anything, to do with non-Indigenous peoples” (p. 21). In carrying out my research, I have worked to follow Reinsborough and Barndt’s (2010) advice and to engage in critical reflexivity of my own role(s) and place with regard to my institutional locations, cultural identities and physical space as a non-Indigenous researcher engaging in this work. In IEES, in keeping with the common R’s of Indigenous Studies (respect, responsibility, relationship, reciprocity), the focus is often on a fifth R: revitalization, which is also a useful term in these discussions and can be used in place of terms, which may carry other connotations, such as decolonizing.

In bringing together social and ecological issues, through decolonized and place-based EE programs, learners can confront their own role in this troubled history. By drawing on the principles of traditional Indigenous education and EE pedagogies, learners can be supported within the community as they undertake this work and can put their learning toward action that is embedded in their community. Exactly what this may look like will vary from place to place, depending on territory, the local contexts and people involved.

Within a larger decolonizing project, scholars are beginning to illuminate the assumptions and values embedded within the scientific enterprise. Given the focus in many conventional EE programs on scientific content and understanding, it is helpful to highlight the assumptions behind this education in order to ensure that EE does not

continue to perpetuate negative ways of relating and making meaning in the world that stem from colonial practices.

Historically, positivist scientists have conceived of their work as being ‘value-neutral’ and objective yet, thinkers have begun to draw attention to the cultural worldview within which scientific researchers find themselves. As Weiss, Hamann and Marsh (2013) acknowledge, “one of the challenges for successful co-management is the acknowledgement that both indigenous and scientific knowledges develop within culturally distinct spheres of beliefs and values.” (p. 287). Weiss et al (2013) explain that the “cultural underpinnings” of Western science need to be brought to the fore especially given that most practitioners do not see their own cultural context or the underlying assumptions therein. This suggestion is an important theme that emerged from the interview conversations in this study, along with the need to engage in “unsettling” as described by Regan.

Rich (2012) writes, “the presumed ‘objectivity’ of science can serve as a screen hiding what is in fact a dismissal of the beliefs and assumptions of other cultures” (p. 312). Hatcher (2012) explains, “Few people are aware of the human dimensions of Western Sciences, their operation within culture-laden presuppositions and paradigms.” (p. 347) Illuminating the cultural context and values within Western Science is an essential component of the decolonizing project that requires learners to engage with the assumptions and values inherent in the scientific approach and build awareness around how their assumptions influence their interaction with other knowledge systems in the context of environmental collaboration and elsewhere.

At a theoretical level, it is vital to examine and question the metaphors we use in thinking about knowledge and knowledge exchange, yet in practice, scholars have identified that moving between knowledge systems remains a challenge for many learners in formal learning environments. Aikenhead and Jegede (1999) suggest that an important priority within formal education is “to develop culturally sensitive curricula and teaching methods that reduce the foreignness felt by students” (p. 269) when they enter the academy and begin learning through a knowledge system, which is different from their own. As Huaman (2011) writes, “for Indigenous peoples in the Americas, schooling is a historically violent structure that represents colonizer ideologies, an issue that challenges the school as a site of transformation” (p. 254). Dumbrill and Green (2008) expand on the supremacy of western ways of knowing in the academy, “in most academies European ways of knowing are the reference point from which knowledge is understood, societal norm from which ‘diversity’ is defined, and the position of power from which those who are considered ‘diverse’ are constructed as Other” (p. 490). In IEES, the aim is to create a learning environment with its foundations in IK systems, to build a space where Indigenous learners feel at home and can engage in a learning journey that makes space for multiple ways of knowing in the classroom. This disrupts the status quo and responds to the multiple calls that have been made to move IK from the periphery of the academy to becoming more central and to decolonize the academy (Dei, Hall & Rosenberg 2000).

These arguments acknowledge and highlight that academia is not a neutral space and that historical and current imbalances between peoples and knowledge systems can be either perpetuated or disrupted through curriculum development (Dumbrill & Green

2008). As Moore (2012) suggests, “when we learn *from*, it is through observation and personal relationship with the other that the learning takes place. This is different than the ‘surface learning’ that happens when we learn *about* something.” (p. 327). This speaks to the necessity of ensuring that Elders, Knowledge Holders and experts (from various worldviews and backgrounds) are included in curriculum design and delivery to ensure that bringing IK systems into the academy (and in particular environmental programs) is done appropriately and in a way that fosters respectful relationships between learners and the educators and their knowledge systems, while working to avoid the potential for cultural appropriation or misrepresentation of knowledges.

Aikenhead and Jegede (1999) note, “the transition from a student’s life-world into a science classroom is a cross-cultural experience for most students” (p. 271). This suggests that cross-cultural learning is happening on multiple levels within IESS-type programs for instance, between learners in the classroom as well as between learners and the teaching material. Aikenhead and Jegede (1999) conceive of cultural border crossings, which “take place between cultures or between microcultures” (p. 217), where science is seen as a microculture. The authors explain that some borders are crossed so smoothly we hardly notice they are there and others are hazardous, which can result in a variety of emotive responses, including avoidance (Aikenhead & Jegede 1999). These are important considerations when thinking about how to teach from multiple cultural perspectives or knowledge systems and to do so in a way that does not marginalize learners.

Aikenhead (2001) writes about the primacy of scientific values among science educators: “science teachers tend to harbor a strong allegiance to values associated with

scientism, for instance, science is: non-humanistic, objective, purely rational and empirical, universal, impersonal, socially sterile, and unencumbered by the vulgarity of human bias, dogma, judgments, or cultural values” (p. 337). Aikenhead (2001) explains that in general, science curricula “attempt to enculturate all students into the value system of Western science” (p. 337) and notes that for the small number of students who are ‘potential scientists’ they welcome this enculturation, but for the rest, “enculturation into Western science is experienced as an attempt at assimilation into a foreign culture” (p. 338). This assimilation represents the continuation of colonialism and continues the work of centuries of attempts by non-Indigenous peoples to assimilate Indigenous peoples into the dominant culture (Aikenhead 2001). Therefore, offering a program like IESS that sees science as a set of tools to be used alongside other ways of knowing and understanding environmental challenges emerges as critically important decolonizing work within the academy and other formal learning environments.

Alongside a need to ensure educational processes and curriculum are sensitive to the requirements of diverse learners, is the vital importance of making space for multiple knowledges within the classroom. This will help ensure that learners are not forced to enculturate into western sciences and will create opportunities for learners to see themselves reflected in the curriculum and topics explored in class in a way that develops a respectful multicultural classroom. Dumbrill and Green (2008) suggest that educators have the “responsibility for bringing knowledge marginalized within society into the classroom. The power instructors hold in the academy gives them the responsibility to be the voice of change.” (p. 499) In IESS, we work to create a space where learners feel safe and comfortable to share their knowledge and experiences with one another, however

plurality comes into the classroom through visiting Elders and guest speakers, videos, and readings, rather than assuming students will take on this role.

Critical Theory and Environmental Education

Furman and Gruenewald (2004) write, “we see environmental crises as inseparable from social crises; environmental problems, for example, are often experienced as social injustices when disproportionate amounts of pollution and toxic waste are literally dumped on those with the least racial and economic power.” (p. 48) In this way, the authors bring a critical theory lens to environmental as well as social justice issues and education. They advocate for social and environmental justice perspectives to permeate education through what is referred to as a critical pedagogy of place in order “to embed the social justice discourse in a larger, ecological narrative.” (Furman & Gruenewald, 2004, p. 48). This position emerges from recognition that critical pedagogy has largely ignored the environmental crisis and that “without careful attention to its own assumptions and metaphors runs the risk of reinforcing the very assumptions (i.e. individualism, competition, consumerism) that underlie and help to reproduce the current unjust political economy.” (p. 53)

In bringing together critical pedagogies with pedagogies of place, educators can attempt to address a gap that has developed between pedagogies, which generally focus on urban and social contexts and place-based pedagogies, which often are associated with ecological and rural contexts (Gruenewald, 2008). Given the place-based nature of IK and the need to include critical theory analyses and decolonizing, these pedagogies have important insights to offer IESS pedagogy. Gruenewald (2008) argues that place-based pedagogies support the wellbeing of the social and ecological locations learners inhabit,

rather than working in the abstract and out of context. In this way, this approach to learning seeks to provide tangible benefits to the communities in which learning is taking place. Taken with Sutherland and Henning's (2009) approach to placed-based pedagogies this critical pedagogy of place begins to paint a picture of IESS pedagogy that teaches through culture and acknowledges local social and political tensions. "Critical pedagogies are needed to challenge the assumptions, practices, and outcomes taken for granted in the dominant culture and in conventional education." (Gruenewald, 2008, p. 308) According to Gruenewald (2008) the goal of critical placed-based pedagogy is to decolonize and promote re-inhabitation through illuminating and problematizing assumptions and unjust outcomes while informing this critique with "the first-hand, local experience of teachers, students, and citizens." (Gruenewald, 2008, p. 59)

In practice, a critical pedagogy of place enables a recognition of how "power and domination are inscribed in material spaces." (Gruenewald, 2008, p. 311) These educational approaches also "focus on the importance of people telling their own stories... in a place where people may be both affirmed and challenged to see how individual stories are connected in communities to larger patterns of domination and resistance in a multicultural, global society." (Gruenewald, 2008, p. 312) Given the descriptions above regarding the misunderstandings surrounding TEK, these educational practices provide insight into how learners may begin to see how their own social and physical locations determine their cultural assumptions and shape their understandings of the world around them.

In applying a critical theory lens to this research, it is important to acknowledge that IK and Western knowledge/science are not yet on equal footing with one another in the academy and elsewhere. As Briggs (2013) points out

there is a sense... that formal science and indigenous knowledge are on the agenda as equals, but this is rarely the case in reality. Indeed, there is a body of literature which tends to reinforce this unequal power relationship by focusing on the validation indigenous knowledge by formal science, as a means of legitimizing the former.” (p. 235)

Therefore, thinking through a critical pedagogy of place, encourages educators to be conscious of and work to disrupt the imbalance between knowledge systems in the contexts in which we work and live. This sheds light on the problematic nature of approaches that reinforce the notion that western science is superior to IK or other knowledge systems. In IESS, IK is not seen as an “add on” or something that can be “incorporated” in a haphazard way, rather, IK is brought into the program at a foundational level through relationship with Knowledge Holders, Elders and the natural world and by having Indigenous experts working at a leadership level within the program to set a foundation for learning along with other relevant experts (i.e. scientists and other scholars).

Conceptions of Self and Human-nature Relationships

Within the field of ecopsychology, scholars have begun to articulate Western conceptions of self and have argued that contemporary Western approaches to thinking about the self encourage a view of self as bounded and independent (Kellert, 1993; Metzner, 1995; Roszak, 2001). Viewing self in this way has resulted in a worldview that sees the personal self as inherently separate from the natural world (Kellert 1993;

Metzner 1995; Roszak 2001). These and other scholars describe the rift between humans and nature as extremely problematic, arguing that not only do humans require connectedness to nature for their well-being (physical, mental, spiritual, emotional), but that this separation has contributed significantly to the ecological crisis (Kellert, 1993; Metzner, 1995; Roszak, 2001).

In contrast, Kellert (1993) illuminates the benefits of developing a deep relationship with the other-than-human world, which include, "... enhanced physical skills and material benefits, greater awareness, increased protection and security, opportunities for emotional gratification, expanded kinship and affiliational ties, improved knowledge and cognitive capacities, greater communication and expressive skills, and others" (p. 65). This work blends well with EE scholars and other contemporary thinkers who have also argued that time in nature can help address modern concerns such as Attention Deficit Disorder, Nature Deficit Disorder and help learners develop into 'whole' beings (Louv, 2008).

Furthermore, ecopsychologists draw attention to the long time continuum in which humans have lived in close relationship with nature, arguing that it is only very recently that this human-nature divide has dominated human-nature relationships (Kellert, 1993; Metzner, 1995; Roszak, 2001). This is out of step with human experience and results in "a degraded relationship to nature", which can increase "the likelihood of a diminished material, social, and psychological existence" (p. 61). These concerns can be addressed by implementing Traditional Indigenous education approaches grounded in IK systems within IESS-type programs that seek to build deep, long-lasting and meaningful relationships with the natural world.

Transformative Education

Transformative learning (TL) was first named while assessing the experience of women who were re-entering community college programs later in life (Mezirow 1975). TL theory emerged from field of adult education and only more recently has begun to explore the role of transformation in working with youth (Wyatt 2012).

In the journal of *Transformative Education*, McWhinney and Markos (2003) put forward the idea that the ancient roots of human transformation were a quest for spiritual and holistic engagement with the natural world (p. 34)

Much of the more recent literature on TL is related to shifting and transforming learner worldviews toward an improved relationship with the natural world and creating a stronger ecological orientation (O’Sullivan & Taylor 2004; Wyatt 2012).

Mezirow (2003) provides a somewhat broader view that enables the inclusion of cultural transformation away from colonized beliefs and approaches toward decolonized thinking and being,

Transformative learning is learning that transforms problematic frames of reference—sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating, open, reflective, and emotionally able to change. Such frames of reference are better than others because they are more likely to generate beliefs and opinions that will prove more true or justified to guide action (Mezirow, 2003, p. 58)

Feinstein (2004) argues, “an act of learning can only be called transformative if it involves a fundamental questioning and reordering of how one thinks or acts” (p. 109) suggesting that there are some inconsistencies in the literature about what constitutes a transformative learning experience. While at the same time, some scholars have

highlighted the problematic nature of prescribing the outcomes of transformative learning, “Implying or stating that all students will, even must, change can be perceived as something of an affront, as if we were implying that there is something inherently wrong with them as individuals when they come to us.” (Johansson & Felton 2014, p. 19) Johansson and Felton (2014) suggest that universities should set the stage for transformation transparently and early, from marketing and admissions to explicitly identifying the course of learner growth and change in each program/course. While I see how it can be problematic to prescribe how students could or should change within a program like IESS, at the same time, I think it is important to draw on the efforts of decolonizing scholars who have identified problematic ways of being for learners and educators to reflect on.

As Weiss, Hamann and Marsh (2013) suggest, “a lack of recognition for the cultural context of Western scientific as well as indigenous knowledges impedes meaningful dialogue across cultures and can result in the denigration of certain worldviews and the validation of others” (p. 287). It is through becoming aware of and examining the cultural contexts, problematic assumptions and beliefs that students may be transformed in IESS contexts. It is helpful here to note that the ultimate goal of IESS programming is for students to become engaged, lifelong learners who are committed to continual and critical engagement with the world around them toward addressing the pressing environmental and social issues of our time.

Mezirow (2000) has proposed a model of TL that is now used widely in the field. The model includes ten phases:

1. A disorienting dilemma

2. A self-examination with feelings of guilt or shame
3. A critical assessment of epistemic, sociocultural, or psychic assumptions
4. Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change
5. Exploration of options for new roles, relationships, and actions
6. Planning a course of action
7. Acquisition of knowledge and skills for implementing one's plan
8. Provision trying of new roles
9. Building of competence and self-confidence in new roles and relationships
10. A reintegration into one's life on the basis of conditions dictated by one's perspective

Within the field of TL there have been criticisms of thinkers who posit what is essentially a linear model of human transformation. For example, Kovan and Dirkx (2003) and Taylor (2008) argue that the approach many thinkers use to conceptualize how human transformation occurs and the processes for encouraging it are reductionist, linear and believe that the roles of emotion, imagination, spirituality and the broader socio-cultural context are left out. These same criticisms are widely expressed toward many forms of Western education, including EE.

Thinkers have proposed potential enablers or factors that can lead to learner transformation (regardless of the age of the learner), which include experiential learning, challenge, critical reflection, dialogue, a safe learning environment, and time (Rowley 2010, Taylor 2008). Flumerfelt, Ingram, Brockberg and Smith (2007) suggest that a learner/educator relationship that is conceptualized as a mentorship relationship is also a

critical component of transformative education, which connects with the discussion on Traditional Indigenous Education above. They draw on Brown's (2005) work, which suggests that a mentorship relationship can lead learners on a 'journey of self discovery', which sets a tone and context for personal transformation (Flumerfelt, Ingram, Brockberg & Smith 2007). In my own experience as an educator in IESS contexts, I have found that it is important for me to share my own reflections, experiences and challenges with honesty in the classroom as this sets a tone for students and creates a foundation of trust for learners to feel comfortable sharing their own reflections, experiences and challenges.

Brown (2005) suggests that through assignments that require examination of ontological and epistemological assumptions, values and beliefs, context and experience, and competing worldviews, transformation is possible in learners.

MacKinlay and Barney (2014) have written about their experiences in facilitating transformative education and describe dialogic, embodied, and experiential learning approaches as central to their transformative pedagogy. These researchers draw from the fields of medical and health science and refer to their broader approach within a transformative education context as Problem Based Learning (PBL), which begins with learners encountering a problem or challenge and then are encouraged to develop a systematic approach for addressing the problem. Often PBL is done with small groups of learners working with one facilitator or instructor who guides them through the process. The approach is personal to the students and asks them to bring their own contexts and selves into the work. Authors argue this approach enables the development of a 'community of learners' who collaborate and learn with one another.

Cohort learning and the learning community in fostering learner transformation

Other writers and researchers have written about the importance of a learning community in transformative education (hooks 1994; Wyatt 2012). These writers highlight the importance of a cohesive cohort in supporting learner transformation as it enables for a learning environment that is both safe and supported by ‘authentic relationships’ as described by Mezirow (2009).

Fenning (2004) defines a cohort as “a group of people who stay together from beginning to end of a program and who grow through the process while developing community and support, experiencing essentially the same stimulus material and challenges of the work environment” (p. 5). Yet, cohort learning itself does not ensure transformation will occur with learners, Wyatt (2012) writes, “The community and support that are necessary for effective cohort learning emerge from the interactions between the cohort’s members... the group dynamic has been found to be a key element that can contribute to learning and positive program outcomes” (p. 45).

The factors necessary for a supportive cohort include the importance of fostering an open, safe and trusting learning environment between learners in a program. Lawrence (2002) further elucidates this thinking, “Communities develop over time and with intention... members of the community must come to know each other and develop a respect for one another’s strengths, weaknesses, similarities, and differences. When commitment is high and contributions from all members are valued, communities have the potential to co-create knowledge, make effective decisions, and effect change. (p. 84).

Researchers highlight the role of experiential education in developing a positive cohort learning environment. For example, Seed (2008) notes that experiential education assists in building a strong cohort of learners and that an appropriate cohort dynamic in

turn supports program goals such as learning and personal growth or transformation. Scribner and Donaldson (2001) also speak to the importance of group climate, norms, communication and roles, suggesting that these aspects can either support or impede learning in a cohort setting.

Galen D'Amato and Krasney (2011) speak to the critical importance of a 'tight-knit' learning community, which supports learners in the challenges that arise in transformative learning environments. This means that providing opportunities for learners to connect with one another outside of formal learning structures is important, therefore programming should include consideration toward means of encouraging learners to develop their relationships and networks with one another and create time and space for them to do so.

Benefits of transformative education

Brown's (2006) research speaks to the ability for transformative learning to enhance personal growth of learners as well as their awareness of and acknowledgement of issues and a subsequent motivation and ability to take action on those issues.

Fenning (2004) identifies that cohort learning can lead to learners who are motivated and have a positive attitude toward the subject, and who discover they have the ability to make learning meaningful for themselves and for others (Fenning, 2004, pp. 5-6). This supportive learning environment has been found to be a significant contributor to setting the stage for individual learner transformation.

Christopher, Dunnagan, Duncan and Paul (2001) have identified that transformative learning can result in an empowered sense of self and a new connectedness with others. While Galen D'Amato and Krasney (2011) speak to the role

of transformative learning in creating experiences that are meaningful and significant to learners, which lead to personal growth, a questioning of old assumptions and the ability to develop new beliefs and values that are consistent with what they have learned. The challenges that are often presented to learners in transformative learning environments (sometimes physical, other times mental, spiritual or emotional) and overcoming those challenges are seen as being an important factor in personal transformation as learners gain confidence and new skills that support their growth and change and also further develop supportive relationships with others in the learning environment (Galen D'Amato and Krasney 2011). This speaks to the importance of building learning challenges throughout a program that is consistent with learner's current capabilities; designing course work to enable learners to stretch to meet the challenges, without the challenges being too far beyond their current capabilities. Johansson and Felten (2014) clarify:

Challenges that transform are ones that sharply but respectfully challenge a students' values and assumptions about themselves and the world they live in. Dissonance at the level of belief or value is what changes and clarifies identity. Disruption that obliterates hope for new possibilities is not productive and should be, as much as possible, avoided. (p. 21)

These authors also point to the ability of transformative learning experiences to spur learners to act upon what they have learned, enabling further personal transformation and change (Galen D'Amato and Krasney 2011).

TL theory emphasizes that individual transformation is not directionless; it instead moves toward a more authentic expression of who one is (Mezirow & Associates 2000; Wyatt 2012). Wyatt (2012) and others identify that the personal transformation

experienced by learners in such programs leads to self-actualization or “becoming who we are called to be” and also results in an increased motivation to change and take action.

A central theme in this literature review and indeed within IESS pedagogy, is the importance of self-reflection and examination, learning about the assumptions and cultural underpinnings that we each carry within us and assessing those assumptions and underpinnings to determine which are problematic and which are positive elements to be nurtured and maintained. As noted above, this is an essential component of decolonizing, but it is also critically important for effective cross-cultural collaboration.

Transformative Learning theory is a field of research and thought, which has developed over a number of decades and has become an important element of many EE programs. TL theory identifies central components to the TL process, including individual experience (prior experiences of the learners as well as how they experience learning with the TL classroom), critical reflection and dialogue (with self and others) around the learning process and their own self-reflection (Taylor 2009). As mentioned above, TL programs often begin with a disorienting dilemma, which can be uncomfortable for learners but sets a stage for the critical self-reflection and dialogue that learners will be engaged in throughout their learning journey. This along with ‘intense experiential activities’ and ‘value-laden course content’ can set a stage for personal transformation in the learning process.

Taylor (2009) explains that confronting painful social issues can enable learners to become aware of their own assumptions and thoughts about race and makes space for experiential learning, reflection and dialogue in a safe space to examine individual/collective assumptions. Taylor (2009) highlights that emotions are common in

this type of learning and that “both prior experiences and those created in the classroom through activities, readings and relationships with other learners provide the gist for critical reflection and classroom dialogue” (p. 8).

Rick Wallace (2013) notes the importance of place-based discourses for nurturing transformation within a decolonizing project, he writes, “transformative place-based discourses and practices are part of the decolonizing project of confronting the hegemonic systems of thought and regimes of truth understood as ‘common-sense’ Canadian discourses that dominate public space and policy and reinforce power over Indigenous peoples.” (p. 24) Therefore, we can see the links between place-based learning, critical theory, transformative learning and decolonizing and how within an IESS pedagogy, anchoring inquiry and learning in local contexts is critically important, especially with respect to bringing together knowledge systems so that applications of knowledge remain practical and result in tangible benefits to the Indigenous peoples and the knowledge systems involved

Chapter Three: Research Design

Research Questions and Approach to the Study

This work responds to the following questions:

1. a) What skills, values, knowledges and approaches do environmental practitioners need to enable Western and Indigenous knowledge systems to come together in addressing environmental challenges?

1. b) What does effectiveness and/or success look like in cross-cultural environmental collaboration?

2. How can post-secondary and professional development educational programs impart the skills, values, knowledges and approaches that their students need to effectively engage in work that brings together Indigenous and non-Indigenous people and their knowledge systems in addressing environmental challenges?

These questions are addressed through complexity theory inspired approaches, which ask the researcher to explore a multiplicity of factors and perspectives surrounding the research area of interest. In keeping with this theoretical approach, I have focused on both articulating theory and practical application of the findings. I have accomplished this through discussions with environmental practitioners, reflections on my own teaching and learning journey, a strategic literature review and by observing and reflecting upon my experiences working in cross-cultural contexts. Figure 3 outlines the research design used in this study including the three stages to the research and the foci of each stage. A key element of this study was working closely with the participants to bring forward their voices and experiences in this dissertation.

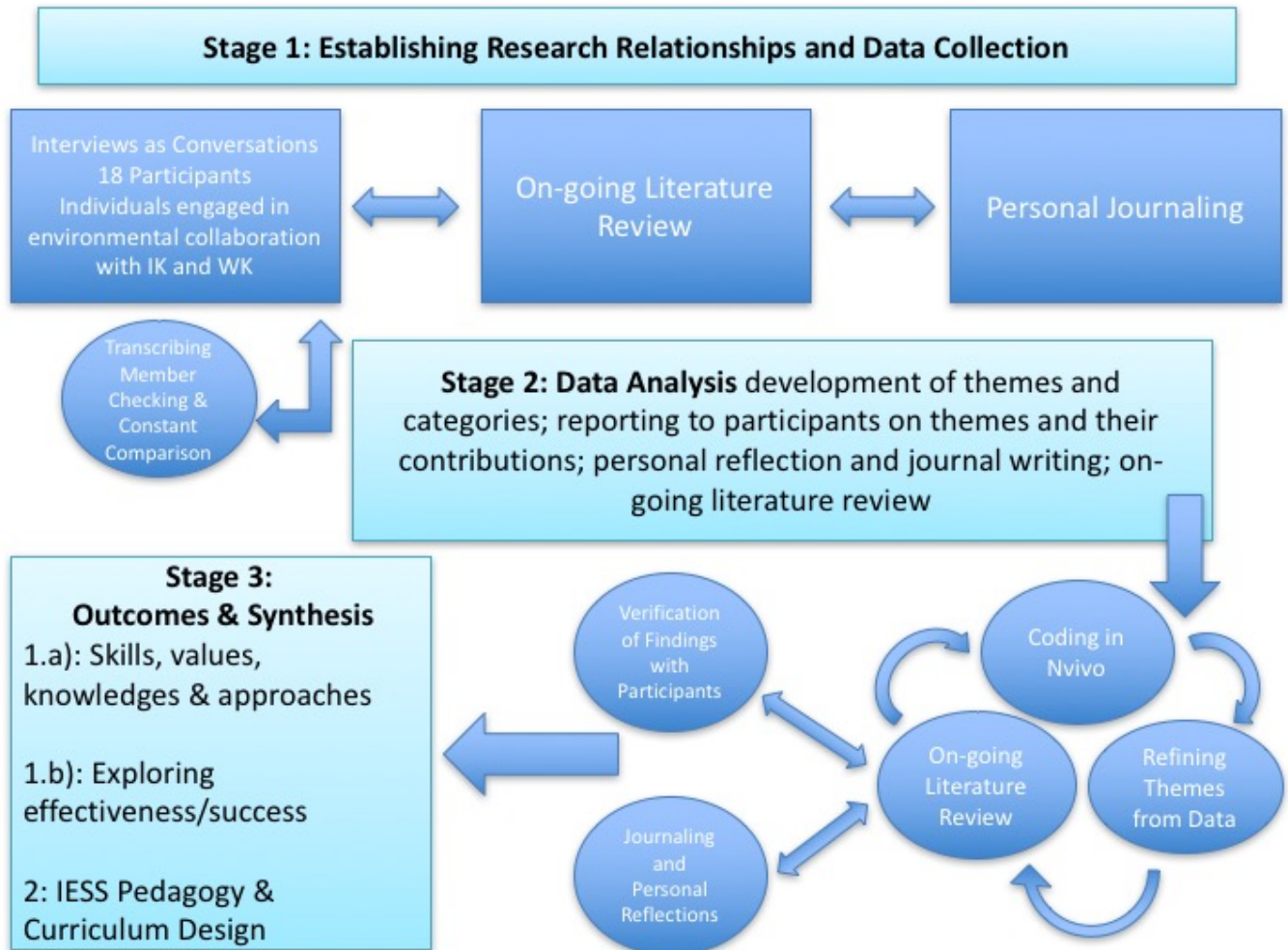


Figure 3: Research Design

The first stage of the qualitative, exploratory research project involved recruiting research participants and engaging in interview conversations with eighteen participants. While conducting interviews, I engaged in journal writing following each interview to highlight themes from each conversation, to begin to link these themes between interviews and to reflect on the ideas in each of the interviews. I developed verbatim transcripts from the interview discussions, which were analyzed in NVivo.

The second stage of the research involved a cyclical process of analyzing transcripts, literature and engaging in personal reflection along with verification of findings with participants. Stage three involved articulating the skills, values, knowledges and approaches discussed in the interviews by the environmental practitioners involved in this study as well as exploring what success/effectiveness looks like in cross-cultural environmental projects. Together with research participants, we examined the challenges that the practitioners in this study encounter as they work cross-culturally, these are presented in chapter five. These elements were brought together in chapters six through eight in the description of the philosophical underpinnings of IESS pedagogy and the design of potential courses in IESS at the post-secondary and professional development levels.

In making decisions about what to include in these findings, I have determined with participants, which elements are crucial, both by analyzing the frequency with which they were mentioned and also the relative importance a participant placed upon any given element. Therefore, skills, values, approaches, knowledges and attributes are included if numerous participants mentioned them as well as if only one person mentioned a specific element but articulated that they thought it was key.

Table 1: *Sources of Evidence in Answering Research Questions Research Methodology*

Question 1a: What skills, values, knowledges and approaches do environmental practitioners need to enable Western and Indigenous knowledge systems to come together in addressing environmental challenges?		
Evidence and Sources (from interviews, literature, personal reflection): presented in chapters four and five		
Skills & Knowledge	Values, Attributes & Roles	Approaches & Challenges
<ul style="list-style-type: none"> • What skills do you find most useful in your role? 	<ul style="list-style-type: none"> • Principles or ‘standards of behaviour’ • What is important or central to the process of collaboration? • What values guide your approaches? 	<ul style="list-style-type: none"> • Processes used: setting agendas and meeting locations, making decisions, setting ground rules, resolving conflict, etc.

<ul style="list-style-type: none"> • How do you maintain communication among everyone in the group? • How do you resolve conflict? • How do you ensure processes are fair? • Do you engage in personal/group reflection on the quality of collaboration? • How do you address negative emotions within the group? • How do you deal with being uncomfortable with what the other participants are saying/doing? • What is most challenging about your work? • What do people need to know? 	<ul style="list-style-type: none"> • How do you think about your work within a ‘bigger picture’ framework/context? • Why do you do this work? • What is the role of shared principles in this type of work? • Describe a situation where individuals in the group shared very different values? How did that impact on collaboration? • What sustains you in this work? 	<ul style="list-style-type: none"> • How are shared values cultivated and agreed upon? • How do you ensure everyone’s voice is heard? • How do you decide upon meeting locations, timing and other logistical details?
<p>Question 1b: What does effectiveness and/or success look like in cross-cultural environmental contexts?</p>		
<p>Evidence and Sources (from interviews and personal reflection): presented in chapter five and nine</p>		
<p>Question 2: How can post-secondary and professional development educational programs impart the skills, values, knowledges and approaches to their students need to effectively engage in work that brings together Indigenous and non-Indigenous people and their knowledge systems in addressing environmental challenges?</p>		
<p>Evidence and Sources (from interviews, literature, personal reflection): presented in chapters six, seven and eight</p>		
<ul style="list-style-type: none"> • How do you measure success or effectiveness? Exploration with interview participants of what defines success and effectiveness in cross-cultural environmental collaborations. Modes of measuring and monitoring success/effectiveness. 		
<p>Description of Pedagogy</p>	<p>Curriculum Development</p>	
<ul style="list-style-type: none"> • Skills, values, approaches from Question 1 • Areas for further research 	<ul style="list-style-type: none"> • Course development, learner activities and assignments, program themes, proposed approaches to instruction and evaluation • Description of learning environments 	

Complexity Theory- An Overview

According to Cohen, Manion and Morrison (2007) complexity theory is an emerging paradigm that is increasingly being used in educational research. They write, “complexity theory looks at the world in ways which break with simple cause-and-effect models, linear predictability, and a dissection approach to understanding phenomena, replacing them with organic, non-linear and holistic approaches in which relations within

interconnected networks are the order of the day” (Cohen, Manion & Morrison 2007, p. 33). In complexity theory, phenomena are explored holistically, rather than focusing on only one aspect of the area of study or one perspective from which to examine the topic. As Brigitte Evering has noted in her work exploring knowledge interaction in IESS contexts, complexity theory approaches and philosophies converge well with Indigenous research methodologies (Evering, 2017).

As Kuhn (2007) describes, “rather than taking a naïve realist perspective, assuming that complexity presents a true and accurate account of the functioning of the world, the ‘discoveries’ of complexity may be viewed as representing a change in the manners of ‘observing’ and narrating a world of understanding” (p. 160) In this way, complexity theory approaches enable the researcher to not only illuminate and seek to better understand the power relations at play within the area of research, but also to challenge dominant discourses (Kuhn, 2007). In this study, I have sought to make visible that which seems to have been invisible to those who occupy positions of power in contexts where Indigenous and non-Indigenous peoples come together around environmental concerns. In this study, making these invisible elements visible has involved stating explicitly the outcomes of the critical theory analysis and centering this analysis throughout the paper in order to make explicit the power and racial dynamics at play in these contexts. This work is critically important in the context of this study, as cross-cultural collaborations around environmental challenges often reproduce existing power hierarchies and dynamics, a theme, which was identified by participants in this study and is explored further in this dissertation in the results and discussion chapters.

Kuhn (2007) explains that complexity sciences “offer a different way of thinking about and describing the nature of the world, and human knowing and understanding.” (p. 157) In particular, our “commonly taken-for-granted ways of thinking” that encourages linear thinking and the long-held belief in the Western sciences that the world is a “mechanical system that can be described objectively” (Kuhn 2007, p. 157-158). These complexity theory principles resonate with many Indigenous scholars and Knowledge Holders who have advocated for Indigenous Knowledges (IK) and perspectives to move from the periphery to the center of academic research along with shifts in how knowledge is understood and disseminated (Dei, Hall, & Rosenberg 2000).

Kuhn identifies that complexity theory offers a shift in the ways in which researchers observe and write about the phenomena at the center of their studies. Further, she identifies that complexity approaches challenge dominant discourses and create space for questioning the beliefs and ‘habits of thought’ in dominant groups (Kuhn 2007, p. 160). Therefore, in later chapters, I have pulled together analysis on beliefs and habits of thoughts embedded within settler identity in order to provide readers with a starting point for exploring the settler beliefs that comprise the dominant culture in Canada and in cross-cultural environmental contexts.

Students in IESS are invited to engage in self-reflection as a regular component of their academic learning in order to begin to see how their thinking both reflects and challenges dominant perspectives and discourses. In terms of this study, I have engaged in regular journal writing as a key part of the research process, which has enabled me to explore my own thinking and responses to conversations with research participants while providing another opportunity for me to reflect on my teaching practice in IESS contexts

and my involvement in cross-cultural collaborations. Part of this self-reflection has also been to become aware of and examine how my own understanding shifts over time, as well as examining how broader discourses are being constructed and are shifting over time. For example, while I was engaged in this research, the Canadian Truth and Reconciliation Commission (TRC) released its final report, which has created a noticeable shift in discourses across Canada and has implications for cross-cultural collaborations as well as educational practice in this country.

Embodying Complexity Approaches by Applying Multiple Lenses

In embracing a complexity theory approach, I have employed a variety of lenses in analyzing the data. Kuhn (2007) suggests that each lens represents a perspective and a multitude of lenses allow the researcher to focus on different elements of the topic and see different things, she writes, “depending on the lens we use (in combination with the kind of eye sight we have) we see different things.” (p. 6). Again, looking to Kuhn (2007),

Through introducing a complexity approach, in the way that I do, I am assisting people in becoming more cognitively agile. That is, more able to draw upon a variety of lenses in their sense making, and having the capacity to do so with awareness. (p. 7)

Throughout this study, I utilized various lenses, in collaboration with my research participants to explore this topic. When Kuhn refers to the kind of eye sight one has, to me, this is about our positionality: who we are and what we bring to this research, including the assumptions, colonial conditioning, educational training, cultural and spiritual understanding and so on that we bring to the research. I recognize that our individual positionality shifts depending on context and to me, reflecting on my

positionality is an on-going process that helps me understand my responses to the data; what is said in the interviews and how to engage the various lenses employed in this research. The following lenses have informed my approaches, reading of the data, personal reflections and decision-making:

Decolonizing/Unsettling Lenses

As explained in the previous chapter, processes of decolonizing or unsettling have emerged in response to ongoing colonialism and settler colonialism across Turtle Island. The processes and approaches to decolonizing are relevant to the work being done within academia by researchers. Therefore, it is important to discuss the role that a decolonizing/unsettling lens plays in my work specifically.

For me, bringing a decolonizing/unsettling framework entails truth telling by identifying and naming historical injustices in the context of cross-cultural collaboration in environmental contexts, reflecting on my own complicity in colonialism, and finding ways for these pieces to inform my work in an attempt to move beyond the settler/colonial legacies that permeate not only my role as a researcher in general but also my research area in particular. While conducting the interviews and creating the transcripts various power relationships and dynamics became evident through this lens, which will be elaborated later in this dissertation.

Decolonizing and settler lenses impart a responsibility to engage in open dialogue with research participants, not only to avoid perpetuating colonialism but also to engage in dreaming and planning for a new way forward. For example, one approach I used to disrupt traditional power relationships between academic researchers and participants was to ensure I was engaged in on-going dialogue with each of the 18 participants in the

study. This involved maintaining relationships by communicating regularly on my progress as well as ensuring each individual was involved to the degree that they wished. One participant shared their appreciation for this approach in an email and wrote, “thanks for doing this and keeping everything out in the open.” Linda Smith’s (1999) book *Decolonizing Methodologies* highlights the historical disregard many researchers had toward participants (often people of Indigenous descent) in their research through a failure to report back and maintain relationships with participants and provided a thorough description of ‘what not to do’ when engaging in research that involves Indigenous participants.

The scholarly work on decolonizing indicates that both looking back at the past and looking forward to the future are essential components of decolonizing (Laenui 2008; Simpson 2011). I have attempted to find a balance in examining the past to uncover historical issues and envisioning a future with better alternatives within the context of this study. As a researcher I believe I have a unique leverage point in engaging dialogue and illuminating issues with individuals in this study who may not otherwise consider these issues or participate in decolonizing work.

In using this decolonizing lens, I have sought to equally value approaches from a variety of sources, not only those that are valued within the academy. Kawagley (2001) instructs that moving beyond the methods accepted by the mainstream academy is essential in generating knowledge, “the institutions of higher learning teach one way of trying to learn and understand phenomena. Such technological and scientific training imprisons the students’ minds to a limited understanding.” (p. 205) Therefore, in using

practices like personal reflection and inclusion of reflective stories, I am supporting the generation of new ways of knowing within the academy.

Critical Theory Lens

Complexity theory “resonates with those tenets of critical research that argue for different voices and views to be heard” (Cohen, Manion & Morrison 2007, p. 34), which enables the researcher to advocate for change while engaging in a research approach that is participatory and constructivist. According to Lincoln and Guba (2000) critical theory entails critique and transformation and requires researchers to situate their work in the historical contexts that define their research area. In this tradition, a researcher is seen as a “transformative intellectual”, an advocate, and an activist who works toward restitution for historical injustices (Lincoln & Guba, 2000, p. 167). Critical theory has informed the literature review and has also been used as a lens that I apply to each phase in the research process.

Constructivist Lens

Alongside this active critique, I am interested in co-creating alternatives with the individuals involved in my research. Lincoln and Guba (2000) describe the constructivism tradition as building understandings, with the researcher facilitating multivoice reconstruction of new ways of thinking about the phenomenon at hand, in this case IESS-type EE programs and cross-cultural environmental collaboration. To me, the traditions of critical theory and constructivism go hand-in-hand, as both offer equally important insights to the research area. Without fully recognizing and understanding the historical context, past errors and issues, how can a researcher be sure that the alternatives they are creating will address the concerns of those involved in the research?

In terms of my research, this meant that to some extent, prior to developing alternatives to current EE programming, I needed to ensure that I understand the current and historical practices and any issues associated with them to ensure that a mindful process is in place for carrying certain practices forward, while leaving others behind.

Respect, Reciprocity, Relationality, Responsibility, Restoration

Steinhauer (2002) and Wilson (2008) discuss the importance of situating research within the core values of respect, reciprocity, relationality and responsibility through on-going dialogue with participants in the context of the shared experience of working together through the research process. For me in this research, this involved establishing and maintaining open dialogue and relationships built on trust to ensure that as we move through the research process all parties are able to articulate their concerns and interests. Also, this motivated me to ensure that my research would be of benefit to those involved not only to fulfill the value of reciprocity, but also to ensure that the process, results and outcomes are meaningful to those involved. These values formed the backbone of the working relationships established within this research.

This study engaged a variety of participants, in order to develop a holistic understanding of the area of research. Other avenues of data collection, including reflections on my own participation in pluralistic EE contexts as a learner and as a Teaching Assistant have been included as well. I have also engaged an on-going literature review, which has informed not only my research design, but also the analysis of data in this study.

Dan Longboat suggests that along with these 4 Rs, there are three additional Rs, which are relevant to this work: Restoration, Revitalization and Remember (Personal

Communication, 2014). These additional Rs suggest the goal at the root of this work, to find solutions to environmental challenges and restore balance in the natural world while fulfilling our original treaty relationships and working toward a nation-to-nation relationship between Indigenous and settler governments in support of Indigenous self-determination and sovereignty. There are clear links here to the ideas discussed earlier in this chapter about disrupting power imbalances through the research process.

Within a larger movement in Canada toward reconciliation, restoration is an important component—restoring the relationship as laid out in the original Treaties between Indigenous peoples and settlers as well as restoring Indigenous nations to their original roles and responsibilities according to their own traditions and teachings. This requires remembering the historical treaties and from an Indigenous perspective, remembering the original instructions from the Creator and working for the continuation of life (Longboat, personal communication, 2014).

Multiple Sources of Knowledge

Complexity theory encourages the inclusion of multiple perspectives; therefore, I have attempted to include a diversity of perspectives in this study. I sought to include a balance of male and female participants as well as a variety of ages, cultural backgrounds, and social positions (i.e. people who work for Indigenous nations and organizations, people who work in government, industry, or in the not-for-profit sector) in this study. I have included more Indigenous participants, as Indigenous voices and perspectives have typically been absent and erased from academic research, although this has begun to change (Dei, Hall, & Rosenberg 2000), which also honours an element of

complexity theory explored above, that of seeking to bring transformative change to the research area of interest.

Marlene Brant Castellano, in her article “Updating Aboriginal Traditions of Knowledge” (2000) outlines the multiple sources of knowledge from Indigenous perspectives, which include revealed knowledge (for example, dreams), personal knowledge, oral transmission, experiential, holistic, and narrative and metaphorical knowledge. In an attempt to honour and include multiple sources of knowledge in this study I have drawn upon a variety of sources through data collection. Essentially, this required a mixed-methods approach in order to make space for plurality in sources and types of knowledge. For example, I maintained a personal journal throughout the process not only to ensure a critical reflexivity in my work, but also to uncover new material to include in the research conversations as they emerged. My approach involved the inclusion of data from interviews with a variety of participants, literature, and other areas (for example dreams, conferences, films and other oral sources, which were included in my personal reflections and journal) as they emerge in order to achieve a rich data set, as advocated by Charmaz (2006).

In utilizing these various methodological frameworks, I have attempted to achieve what Colorado (1988) refers to as ‘integration’, “a blending of research efforts, not the domination or extension of ideological control by one culture’s science” (p. 49). Using this approach to guide my work has required that I develop research strategies and outcomes that are acceptable to and respected by the various people engaged in my work (Colorado, 1988). For example, numerous participants spoke to the need for professional development training for senior government officials, industry representatives and

individuals in the environmental not-for-profit sector. Therefore, one of my research outcomes has been to generate recommendations for professional development training in these sectors given the need and importance identified by the research participants.

Research Methods

Maintaining Respectful Research Relationships

Interview participants and I worked together to identify how each person wanted to be included in the project; each participant had a different degree of involvement. For some, their participation included the interview conversation and review of interview transcripts (either collaboratively or on their own), review of my analysis of the work, review of the findings and recommendations. For some, our relationship will carry forward and we are collaborating on the implementation of the findings. On the other hand, one participant simply wished to participate in the interview conversation and review their transcript. As part of building trusting relationships within this work, I ensured that participants were aware of these options prior to becoming involved in the project and providing their consent. Participants were aware of their ability to withdraw from the research at any time or to remain anonymous if they wished.

These processes have helped ensure that research participants are able to safeguard the information they have shared with me and are able to identify specifically which pieces they want shared within the public domain and what they do not want shared and is private/confidential.

Ethical Considerations

This research has engaged with multiple sources of knowledge, including Traditional Indigenous Knowledges. In the context of a non-Indigenous researcher working with Indigenous Knowledge Holders there is the potential for misrepresentation, cultural appropriation or inappropriate use/sharing of knowledge that is provided by participants in this study. As Davis (2004) writes, “the university is a particular site of tension in terms of recording and disseminating IK, experience and imagination.” (p. 9). It is important for me to acknowledge that I am inserting myself into on-going dialogues between Indigenous nations and research institutions, as well as evolving dialogues, which have been on-going in my research area of interest. I have tried to be mindful of the potential for issues to arise and to contribute toward positive relationships between researchers and Indigenous peoples through trusting and reciprocal relationships with those who will collaborate with me on this work.

In awareness of these concerns, I have worked closely with research participants to ensure they are only participating to the degree that they are comfortable and that they are aware of their rights to withhold information, to withdraw from the research project, and to review my work as it emerges. There are specific issues that surround this work, which will be addressed below. Throughout the project, I have followed the ethical guidelines and considerations put forward by both Trent University’s Research Ethics Board as well as the Indigenous Studies Department’s Research Ethics review process to the best of my ability and knowledge.

Consent

Participants were asked to provide consent to become involved in this process. Knowing that written consent forms are at times inappropriate participants had the

opportunity to provide verbal consent as part of interview recordings. For some interviews that were conducted over the phone, consent was given verbally over the phone with an electronic copy of the form sent separately prior to or following the interview. Individuals were briefed on the research project itself and how their contributions will be used.

I have engaged in on-going dialogue with participants about how they would like to be identified in this research. Some participants have asked to remain anonymous, in which case their quotations and contributions are not directly attributed to them, whereas others preferred to have their contributions identified. In some cases, there were certain quotations that participants did not want attributed to them while other quotations they wanted identified as theirs. I worked closely with the participants in reviewing the transcripts and quotations in order to ensure a transparent and collaborative process in including their contributions to this work.

As mentioned, participants have had the opportunity to review their contributions to the final dissertation and to identify which, if any, of their quotes and contributions they would like to have attributed to them directly or kept anonymous. Anonymity was used to create a safe space for people to reflect openly about their experiences in cross-cultural collaboration and for participants to feel comfortable to offer critical perspectives about the organizations within which they are situated or have worked with in the past and the projects they have worked on.

Following Cultural Protocols

Where appropriate and as far as I understand, I have attempted to follow traditional cultural protocols in engaging with Knowledge Holders. This has involved

passing tobacco when requesting the participation of Anishinaabeg Elders and Knowledge Holders as well as engaging in ceremony with participants while conducting the research. In some instances, such as when interviews were conducted over the phone, following these protocols was not possible. There are likely instances where I missed following a protocol out of my own ignorance and if that is the case, I would like to extend my apologies for not following protocols.

Interviews as Conversations

The interviews were conducted as open conversations between the participant and myself. Jo-Anne Archibald (2008) writes, “Research as conversation is characterized as an open-ended interview with opportunity for both sides to engage in talk rather than only one party doing most of the talking.” (p. 47). I had a list of questions (appendix A), which were pre-tested with two interview participants (whose responses are also included in the study) and provided a guide for our discussions. Depending on the participant the interview guide was followed more or less closely, however the intention with using interviews as conversations was to provide an open dialogue between the participants and myself for each of us to reflect on our experiences and understanding of the cross-cultural work we have been involved in. Given that for the majority of the participants, we have collaborated together on many of the projects discussed, there were often different questions and veins of discussion from interview to interview, which the approach of using interviews as conversations was able to accommodate.

Participants were provided with background on the study prior to the interview, including an overview of the primary goals and objectives of the study. The interviews were planned for a time that worked for both our schedules and in a location that was

most convenient and comfortable for the participant. In some instances, it was difficult to coordinate meeting in person and interviews were conducted over the phone. Despite having a list of potential questions and prompts, the conversations were mostly unstructured, which helped to enable ideas and themes to emerge and be followed as they developed in the discussion and insofar as they relate to the research.

It was my goal for the conversations to be beneficial to both the participant and myself and to create space for a co-learning journey based on our shared work. While this felt like a lofty objective prior to commencing the research, it became evident in many of the interviews that this was indeed the case and that participants enjoyed our conversations and appreciated having time to think about and reflect upon their work in a way that they often do not have time for. As one participant noted,

I think probably a lot of the people you've talked to have had a chance to, like I'm doing now, to sort of consolidate things in their heads and figure out and come to some realizations that they didn't know [before doing the interview].

Participants also spoke about the importance and timeliness of this work and their excitement to read the final dissertation to learn from the reflections of other practitioners working in these contexts, which also speaks to the role this work has played in creating time and space for practitioners working in these contexts to further engage in this co-learning journey with one another.

Research Participants

In finding participants to become involved in this research I used two main approaches: purposive and snowball sampling to identify individuals who were engaged in environmental collaboration and were willing to participate. I was interested in

working with individuals who had extensive experience working cross-culturally on environmental challenges and those who were currently engaged in a cross-cultural environmental initiative. In some cases, the collaboration could be characterized as conflict-based, where people in the group were coming together based upon a land-based issue (such as logging on Traditional territories) while for other individuals the collaboration was described as shared projects to address mutual concerns (for example the loss of a specific species or addressing climate change). Many of the participants in this study had experience in numerous cross-cultural contexts, including both those that were initiated by conflict and those that were initiated by cooperation.

It was important to me that participants had experience working cross-culturally on projects that explicitly bring together Indigenous and non-Indigenous people and their knowledge systems. I felt it was instructive to engage with practitioners who had varying levels of experience doing this work, therefore, I spoke with people who had been doing this work for decades or for some, their entire lives, whereas there were other participants who were new to working cross-culturally on environmental projects.

In keeping with approaches in Indigenous Studies, I began with my existing relationships (Moore, 2012). Therefore, first, I contacted the scholars, practitioners, Elders and Knowledge Holders with whom I already had a relationship through previous or current work. In most cases, I sent an email to inquire about their interest in being involved in this work; in some cases, I called first to discuss the project and in a couple of instances, interest in my research came through discussions during other work in which we were engaged. Some research participants suggested others who would like to participate and in some cases, people with whom I had no previous relationship were

included as well. As mentioned above, my goal was to include participants from diverse social positions (i.e. working in government, industry, First Nations, Indigenous Organizations, Western scientific organizations and institutions, etc.) while finding a balance of male/female, Indigenous/non-Indigenous. At the same time, I acknowledge that these experiences and identities are shifting and not discrete.

In arranging the conversations, I offered to meet participants at a place and time that was convenient for them. Given resource constraints and a small travel budget, I focused on meeting with participants located in the Great Lakes Region in order to be able to travel by car to meet with participants. Some of the individuals in this study preferred to meet over the phone, which enabled me to include participants I may not have otherwise been able to speak to. However, I noticed that in some cases, conversing over the phone instead of in person impacted the dialogue, in that phone conversations were sometimes shorter or more difficult to facilitate. The degree to which not conversing face-to-face impacted the dialogue seemed to relate to how well the person and I already knew each other going into the conversation.

The participants in this study all live and work in the Great Lakes Region of Ontario, Canada and Michigan in the United States. In total, there were 18 participants involved in this study, with a balance in male/female participants and Indigenous/non-Indigenous participants.

Most of the participants in the study had experience working in multiple social locations. For example, a number of the Indigenous participants have worked for their own communities, for Indigenous organizations as well as within Canadian federal or provincial governments. For most of the participants in this study, the situation was

similar in that they have worked in multiple locations doing their cross-cultural environmental collaboration. This multiplicity of experiences offered great richness to our discussions, as they were able to reflect on their experiences from many different contexts including the projects we have been engaged in together. In presenting the results of this dissertation, I provide descriptors of individual's experiences and positionality where needed when presenting quotes to assist the reader in understanding the content or perspectives shared by each person. However, I strive to protect the anonymity of the participants who wish to remain anonymous by not explicitly naming them.

I met with participants, either in-person or over the phone and explored a series of interview questions (see Appendix A for interview guide). Depending on the conversation, the dialogue followed the interview guide more or less closely. In some cases, when meeting with Elders, they simply asked me again about the research and what my goals were for the study and then spoke freely, at great length about their thoughts and experiences related to the topic. At the end of each interview, I reflected on my thoughts and emotions in my research journal and felt that regardless of how closely we followed the interview guide, that each conversation added to and built upon the ones that came before. Each interview was recorded with a hand-held recording device and on a laptop computer for back up. Recordings were saved to an encrypted back up drive as well.

Following the interviews, I transcribed the recorded interviews verbatim. For the participants who indicated that they wanted to review their transcripts I sent electronic copies for their review. As I was working through the writing process and began selecting quotations for inclusion in the dissertation I kept a document with quotations

from each interview. Once the drafting process was complete, I sent participants a document, which provided all the quotes I pulled from our interview as well as another document describing the initial findings in the study. Participants were able to edit/comment upon their quotations, to confirm whether or not they wished to be anonymous in the presentation of their contributions, or if there were specific quotations they did not wish to have attributed to them. Some participants commented upon the summary document and added emphasis and additional thoughts for consideration. For many participants, this work was achieved through an email exchange, but for some we had follow up conversations to discuss the quotations, findings, and their contributions.

Participant Observation

Through note-taking and personal reflection I have brought my own experiences to bear on the area of research. Participant observation has been used to enrich the data gathered from participants and literature. As Weiss explains, participant observation can be used “as a means of corroborating interview responses and gaining contextual information and cultural insight” (Weiss et. al, 2013, p. 290). Observations and reflections from my involvement in environmental collaboration across knowledges, as well as my experiences teaching in cross-cultural contexts have been recorded in a journal used throughout this research project; these reflections were included in the data analysis phase of the research. I have also included reflections and thoughts on relevant conferences, meetings and other experiences that I have had while conducting this research including the conversations I had with participants as part of the research.

On-going Literature and Document Review

Throughout the study, I have engaged with pertinent published literature as well as other materials suggested to me by participants and my committee. In the case of educators, this has involved materials describing their pedagogies and approaches, whereas for practitioners this has included guidelines and other materials they have generated to support individuals, organizations, and governments working in this area. Such materials have only been used with the consent and expressed interest of participants to have them included.

Data Analysis

An initial analysis of interview content took place during the transcribing process where I highlighted and commented on the text as I was transcribing it, a process referred to as writing ‘analytic memos’, which are then included with the interview data (Saldaña 2013). This process provided an opportunity for me to include my own reflections on what was shared in the interviews and to begin to find linkages between interview transcripts. Following the preparation of all the interview transcripts, the data were analyzed using NVivo software. This enabled me to read the data again and find additional themes to explore within the data. The transcripts were coded, themed and compared. The data were also explored using the visual representation tools available within NVivo software.

I used a process called “Eclectic Coding” to guide data analysis during first and second cycle coding. Eclectic coding enables the researcher to use a number of coding methods simultaneously (Saldaña 2013), which enabled me to view the data from a variety of perspectives as advocated for in a complexity approach. In this study, the following first cycle coding approaches were used simultaneously:

- Provisional coding: I established a list of initial codes prior to analyzing the data. In this study, the provisional codes came directly from my research questions and were grounded in literature, which identified ‘missing pieces’ within IESS pedagogy. These provisional codes included: skills, approaches, values, knowledge, relationship, respect, reciprocity, professional development and power dynamic
- Values Coding: this was used to help me identify values that were not explicitly discussed during the interview conversations. As Saldaña (2013) suggests values coding is applied to “qualitative data that reflect a participant’s values, attitudes, and beliefs, representing his or her perspectives or worldview” (p. 110). Some values codes were identified provisionally such as, relationship, respect, and reciprocity, whereas others were identified through the analysis process
- Emotion Coding: Saldaña (2013) notes that, “since emotions are a universal human experience, our acknowledgement of them in our research provides deep insight into the participants’ perspectives, worldviews and life conditions” (p. 106). Emotion codes are typically a single word code and were used in this study to further illuminate the nature of collaboration and the challenges and opportunities participants suggested in our discussions. Here are a few examples of emotion codes from this study: empathy, denial, comfort, discomfort, and guilt.
- In Vivo Coding: also known as “verbatim coding” this approach refers to a word or short phrase taken directly from the data and provide a means of honouring the participants’ voice and contributions to the subject at hand while also providing a

crucial check on whether or not the researcher has grasped what is significant to the participants (Saldaña 2013).

- Simultaneous Coding: simply, this is a method where multiple codes are applied to the same datum. This came up a number of times in the study where a passage was assigned multiple codes (for example, both power dynamic and challenge). Saldaña (2013) suggests that this method of coding is appropriate when “the data’s content suggest multiple meanings that necessitate and justify more than one code” (p. 80) in recognition of the complex nature of social contexts

Each of these coding approaches highlighted specific elements in the research questions (i.e. using values coding to identify values) and by employing multiple approaches, I was able to bring multiple lenses to the data simultaneously.

For second cycle coding, analysis included exploration of common ideas and themes as well as divergent views, which were compared with literature data. Both areas of similarity and difference were seen as critical in understanding and answering the research questions. Codes were nested within one another as appropriate and grouped into categories. The frequency of each theme and of text related to codes has been documented to highlight areas of emphasis from the interviews. Codes and categories were compared and grouped/regrouped until a rich picture of the data emerged and responses to the research questions were generated.

Leslie Kuhn (2007) writes about using a fractal analysis approach in engaging with interview data in complexity theory contexts. Kuhn (2007) explains, “viewing organisations as fractally constructed means looking for similarities that are apparent across different scales” (p. 87) [sic.]. Kuhn suggests that a representative in a study is not

“merely a part of the whole, but in important ways, is representative of the whole” (Kuhn 2007 p. 87). Therefore, the contributions of research participants in this study can be also applied to other related contexts, as appropriate. Kuhn (2007) puts forward many helpful concepts that have been instrumental in data analysis in this study.

In summary, the research design for this study utilizes a complexity theory influenced approach, engaging multiple perspectives and approaches. The participants were engaged in an on-going dialogue about the project and their involvement in it, including the findings of this research and identifying next steps. Indigenous scholars and participants were privileged in this study in an attempt to make additional space for IK systems in the academy and to ensure that thinking on cross-cultural collaboration between Indigenous and non-Indigenous peoples includes the critical contributions of Indigenous people. The following chapters will provide detail on the findings of this study including a further articulation of an IESS pedagogy and next steps for further research.

Chapter Four: Results- Values, Attributes, Knowledges and Skills

Insights from the Interviews

A primary purpose of this study is to further articulate the central elements of IESS pedagogy beyond how it is currently conceived at Trent University and other institutions. This broadening of the pedagogy will create greater clarity with respect to approaches to teaching and learning and the central learning outcomes of the pedagogy. Pedagogy includes several elements, including values, attributes, knowledge and skills, therefore, this chapter explores not only the elements that are central to the participants' work, responding to research question one, but also begins to describe findings in support of research question two.

In developing an understanding of the pedagogical elements, I engaged practitioners in discussions of their experiences in cross-cultural environmental collaboration. In particular, this involved projects that aimed to bring together Indigenous and non-Indigenous peoples and their knowledges in addressing environmental issues. Through this reflective dialogue, participants shed light upon the key values, attributes, knowledge, and skills that they draw upon in doing this collaborative work. Below, I present these elements, along with direct quotations from the interviews.

My aim in sharing these core elements is to support educators who work in developing courses and programs that focus on preparing learners to work cross-culturally on environmental projects. Additionally, I believe these elements will support environmental practitioners who are already engaged in this type of cross-cultural work.

This section reviews the values, attributes, knowledges and skills that participants suggested are central to working cross-culturally and should be cultivated in training.

The material is presented in alphabetical order. Table 2 highlights the values, attributes, knowledges, and skills participants in this study articulated as central to cross-cultural environmental collaboration.

Table 2: *Summary of Values, Attributes, Knowledges, and Skills for cross-cultural environmental collaboration*

Core Values	Attributes	Knowledges	Essential Skills
<ul style="list-style-type: none"> • Accountability • Gratitude • Honesty • Humility • Non-Hierarchical • Non-Judgmental • Peaceful • Reciprocity • Respect • Relationships • Responsibility • Space • Spirit and Sacredness • Trust • Vocation 	<ul style="list-style-type: none"> • Authentic • Compassionate and Empathetic • Connectedness • Inquisitive, curious • Open-minded 	<ul style="list-style-type: none"> • Awareness of worldviews, knowledge systems, and ethical exchange • Community Contexts • History, colonialism, settler colonialism and unsettling • Laws and frameworks for Indigenous Responsibilities and Rights • Racism and Power Dynamics 	<ul style="list-style-type: none"> • Active Listening • Communication • Kindness • Patience • People skills and Reading People • Reflection

Core Values

Participants spoke about the values that support positive or effective collaboration at great length, suggesting that learning to embody the values that are conducive to working cross-culturally is extremely important. Oftentimes, in our conversations the

focus was on cultivating values over obtaining content knowledge at post-secondary institutions. This is not to say that content knowledge is unimportant or does not have a place, however, that given the heavy emphasis on content knowledge within formal learning institutions participants felt that it became even more important to acknowledge the essential role that cultivating values has in cross-cultural collaborations.

Many participants spoke to the necessity of discussing and working to embody shared values at the outset of a project or collaboration. This was seen as an important part of relationship building while also being key to setting group processes and approaches when collaboration is in the early stages. As Elder Lark Ritchie explained, “you’ve got to establish that type of, ‘I understand the values’ and both sides have to come to that.” Lark indicated that values are not necessarily shared at the outset, but that all the participants agree upon the importance of certain values and they begin to see what each person values and is bringing to the table in their shared work. In learning about one another’s values, people can begin to see what is important to their colleagues and learn how to engage with them respectfully.

Throughout this section on values, I have highlighted where participants’ values and insights connect with existing approaches in IESS and the broader discipline of Indigenous Studies to indicate where this work supports existing literature and approaches. In sharing these linkages, my goal is to provide guidance on how the values can be activated through teaching and learning.

Impacts of colonization on Indigenous values

It is important to note the impacts of colonization upon traditional values within Indigenous cultures. This is another area where knowledge of history and cultural

sensitivity is essential. Again, Elder Lark Ritchie shared, “sometimes they don’t have values. It’s not that they are people without integrity or something like that, but they don’t have anything that links it all, because that whole set of bonds back to culture have been destroyed.” To me this is a call to be cautious, especially about the assumptions people may bring with them to cross-cultural collaboration about Indigenous cultures, values and ways of being. The key is not to assume about the particular values that any one person may or may not be bringing with them to collaboration and to create a space for project partners to engage in dialogue about the values that are central to their involvement in a shared project instead of assuming that certain values, because they show up in this study, the literature, or are seen as central to a particular culture are indicative of everyone’s values.

In this section, I present the values that were referred to in the interviews as well as those I coded in the interviews using the values coding approach in order to articulate values that participants in this study suggested are central to cross-cultural environmental collaboration. Some of the values listed below are elements of larger Traditional Teachings, for example, several of the values listed are also found within the Anishinaabeg Nation’s 7 Grandfather Teachings. A number of the Anishinaabeg participants in this study pointed explicitly to the 7 Grandfather teachings in our conversations whereas other participants discussed the same values within a different context (of their own cultural traditions or from their experiences working cross-culturally).

Accountability

Several participants spoke to the importance of accountability in cross-cultural work, a notion that was linked also to that of responsibility. Accountability came up in various different ways in the interviews, including the need for everyone to be accountable to project partners through taking responsibility and open communication, but some interview participants also made reference to accountability to “the powers that be” in any given context. As Lilith Wyatt explains,

In defining to whom we are accountable, we need to expand it from the old white man powers that be, because to whom we hold ourselves accountable as a charitable not-for-profit is according to Canadian law, but also according to our own by-laws, which state that we are accountable to the people of this region and our members. The board works to embody that accountability by ensuring Indigenous voices are represented in their membership and in making governance decisions.

This was contrasted with her previous experience working at a large Canadian university where the accountability had fallen primarily to a leadership of older, white, males and where Indigenous voices were more marginalized from decision making. This is a reminder of the importance of context and how power structures and dynamics play out in different contexts and for each of us to be aware of and analyze the power structures inherent in our cross-cultural collaborations.

Balance

The concept of balance came up in several of the interviews. Balance related to broad considerations from finding the right balance of people to work on cross-cultural projects to addressing and prioritizing the competing needs of communities and project partners. Participants spoke to the need for balance with respect to building relationships and working to be supportive and present without being overbearing or intrusive.

Participants also linked balance to the need to patient in waiting for change to come while not being complacent. Finally, participants suggested that balance was needed in Creation and in particular, the role of various elements in Creation in maintaining a healthy balance on Earth for life on Earth. As Elder Pat Tangie shared,

The old people told me everything in the ground is there for a purpose. It helps to keep us balanced as Creation and as a people. The animals are balanced, we're balanced, the whole world is in balance when the minerals and oils stay in the ground. The more you take out, the more unbalanced we're going to find ourselves.

In one of the interviews, the conversation shifted to the plethora of issues we are faced with, from environmental, social, political, and so on, and I had mentioned that I felt very overwhelmed some days, to which Elder Larry McDermott replied,

Being overwhelmed is an indicator that things are out of balance. Contemplating, expressing and being grateful—cultivating the heart and mind connection. When I get into trouble is when I don't do those things that help ground me and understand my place and that's what those old ceremonies are for. There is a huge need to do more of that on a regular basis.

This insight speaks to the need to find balance and the role of ceremony and other practices like contemplation and meditation in finding personal balance. Participants indicated that personal balance sets a foundation to build the capacity to engage in cross-cultural environmental and social justice work long term.

Gratitude

The importance and role of gratitude was highlighted in a number of interviews. Gratitude was discussed as a central element of the spiritual practices that participants maintain to support them in cross-cultural work and it was also seen as a crucial element of collaborations in terms of partners expressing gratitude for the learning and knowledge

exchange that takes place as part of the collaboration. For example, as one government employee discussed, “when someone’s sharing something with you and even if it may be making you uncomfortable, thank them for sharing it, sometimes all you can do is say thank you and ‘I didn’t know that’ and ‘I appreciate you teaching me.’” Participants in this study suggested that even when learning difficult truths, it is important to express gratitude.

Elder Pat Tangie noted the importance of expressing gratitude in helping her to overcome the negative emotions that often characterize cross-cultural collaboration, she explains,

I really need to do my smudging. I really need to do my praying and expressing gratitude and looking within to overcome those negative attitudes and those negative perspectives. When I follow through on my spiritual rituals, the negativity of the outside world doesn’t seem to penetrate. What I find is that if I don’t do my daily rituals, if I don’t sit with myself and give thanks for this day and for all of the blessings that I have in it, if I’m not expressing my gratitude, those negative emotions can eat me up.

Therefore, gratitude emerges as an important tool to support practitioners in their work in several ways; gratitude is key to maintaining relationships and communication between partners in collaboration as well as the importance of gratitude for their own spiritual and emotional health with respect to being able to weather the difficulties of collaboration. Participants shared that if they let go of the daily practice of expressing and feeling gratitude then negative emotions hold more sway and impact on their collaboration in terms of how they feel about the work in general and the quality of communication in the group.

Honesty

Honesty was discussed by participants in this study, suggesting it is an important value in cross-cultural work. One non-Indigenous participant who currently works in government suggested, “be open and honest and respectful. I think the honesty thing is key. When you’re going in, to not be anybody else but yourself.” Another government employee also talked about the importance of being honest, especially about your capacity and abilities as a government staff person, he explains, “to be honest of what your ability is, that’s big, to be honest of what you can do,” this was linked to being humble and not entering into a collaboration project thinking you will address all of the concerns or challenges, knowing that some issues require higher-level staff, for example, was seen as important in cross-cultural work. This also avoids having partners enter into collaboration with false or empty promises, which could create potential for trust issues or undue conflict between partners.

Kyle Powys Whyte spoke about having seen situations where academics and others in collaboration try to focus only research methods while attempting to avoid and leave out the political or other issues that are related to the project at hand as exemplified in the quote above on the section about trust.

For Kyle, the role of honesty in this context is to acknowledge that there are a number of interrelated realities that are important to acknowledge in order to conduct cross-cultural work in appropriate and respectful ways. Being honest about the full breadth of related issues, including political and trust issues, creates a foundation for better relationships between partners and sets up a collaborative initiative where honesty and openness can characterize conversations, rather than avoiding topics that may be

uncomfortable. In my experience, speaking directly to challenges that may impact on group processes is essential. When these topics are avoided, they seem to always find a way to come into the discussion and often, if they have been ignored they become more detrimental to group processes than if they had been dealt with upfront.

Humility

Participants suggested that being humble is an essential value in working cross-culturally. This is linked to the discussion above regarding the value of honesty and suggests that many of the values identified in this study are mutually reinforcing and inter-related.

First, humility was identified as an important part of being open to listening and engaging in a cross-cultural project. As Gordon Kayahara suggested, “when you go in, you’ve got to be humble and not think, ‘I’ve got all the answers and I’m so good that I’ll be able to do something about it or I’ll be able to convince you’...” this means, being open to multiple solutions and alternatives and not being stuck in believing that your own approach or idea is better than those of others. There is also a strong link to being patient in this context that being both humble and patient creates a space for open dialogue and for the group to discuss the approaches that will work best in the given context.

Additionally, humility is about acknowledging and being aware that many of these issues are complex and that many people have already spent considerable time working to address them. Gordon shared a story about a time when a community member called him out for not being humble at a blockade, which had a major impact on him as a person working in government; he described this experience in our interview,

I asked to speak to someone in charge and I couldn’t talk to anyone. They wouldn’t direct me to anyone and a woman from Moose Factory said, ‘yeah but,

it's because you guys aren't humble, you come in and say I want to talk to somebody and you're not very humble.'

In this story, it is clear that a comfortable approach within a Western context, asking for the person in charge, was inappropriate and showed a lack of humbleness at the blockade. For example, several assumptions were made: firstly, that there was one key person in charge; second, that this person would have the time to speak to them and answer their questions and finally, that their need for information would be a top priority at the blockade and so on. Kayahara suggested that being humble in these contexts required "an honest humble" where humbleness is authentic and meaningful and not just appearing and acting as you think you should.

During our interview conversations, participants also exhibited their humbleness in our discussions. Elder Lark Ritchie spoke about his role in addressing the issues facing his community, rather than expanding upon all the things he had done, he pointed out the additional issues and challenges that need to be addressed and noted,

I don't do enough. But, when you know these people, I mean your own Aunt or your Uncle or whatever and something happens, you figure well, what can I do to change that type of thing? I suppose why I do this is because of what I saw... I don't do enough and I'm limited by the time that I have, but I think there is value in trying to build a platform where we can start to talk.

Sue Chiblow shared a teaching from an Elder she had known that provided guidance on how to be humble,

One of the Elders said one time that no idea is original. What is original is the implementation of that idea and I think that's an important lesson people need to understand. This teaching is about arrogance because when you're going into a community to investigate an issue, seeking solutions, somebody may have done

that already. Understanding this may have already happened is important for implementation of solutions.

Lilith Wyatt echoed this need for being humble and noted that in her experiences, when cross-cultural dialogue begins from a recognition that there are unknowns and unanswered questions that often the outcomes are more fruitful, she explains, “I try to approach cross-cultural work with that default tone of ‘we’re here to learn because we don’t yet know,’ and that’s the point, that’s why we’re here. We’re not here because we do know, we’re here because we don’t.” In her experience, opening up a conversation about the unknowns and creating a safe space for dialogue where everyone has an opportunity to ask questions and learn has been productive for supporting cross-cultural work. She reflected upon other meetings where a different tone had been driving the discussion and noted that there was more conflict, misunderstanding and people seemed less open to learning new things and engaging difficult, yet productive dialogue.

According to the participants in this study, bringing a humble nature to cross-cultural work can help build trust and relationships and can support participants in keeping an open mind about group approaches, goals and outcomes. The opposite, being arrogant, was highlighted in the quotes from the participants as being detrimental, with potentially lasting impacts on how project partners are perceived and more broadly, the overall effectiveness and success of cross-cultural work.

Non-Hierarchical

Elder Larry McDermott suggested that it is important within environmental collaboration to model our approaches from patterns we can see in nature, for example, he explained,

There is no hierarchy in Creation. Hierarchies, social hierarchies, for example, stratify societies and are created in the minds of people, but, they're not based on the truth of what I consider to be the fundamental principles behind Creation and of my Indigenous values system.

According to participants in this study, creating a framework for collaboration that models approaches found in nature can create a balanced approach to working cross-culturally. This includes avoiding hierarchies and honouring our interconnectedness, among other approaches that will be woven into this and the following chapters.

Participants spoke about the importance of an equal exchange between partners in collaboration. As Gordon Kayahara explained,

It's coming from a true grounded part of a person and it's not only me helping you, but you're helping me and it's an equal relationship and that gets back to that reciprocity, right? It's an equal exchange, it's not that patronizing, 'I'm coming in because you're so hard done by and I'm going to help you'

Therefore, the focus is on partners working together, not one party who needs the assistance of the other, without a two-way exchange of information and knowledge.

Participants in this study highlighted the importance of cross-cultural groups to strive for equity and equality in their work. Oftentimes, this was also linked to the importance of active listening, which was discussed as a key element of creating equity in a cross-cultural collaboration. As Larry McDermott explained, using active listening skills is one way to “ensure that everybody has a voice” and that by exhibiting active listening skills is one way that creating equity can “be done in a self-less way”.

Non-Judgmental

Non-Judgment was alluded to in many of the interviews and directly addressed in some of the interview conversations. Often this was with regard to recognizing that

people “don’t know what they don’t know” and that everyone is on their own learning journey and at different stages in their understanding. This value of non-judgment is an important component of IESS learning communities, where students are expected to cultivate practicing non-judgment, even as they may disagree with one another and engage in debate on classroom topics.

Peaceful

Algonquin Elder Larry McDermott spoke about the value of peace, within a bigger picture context of cross-cultural work. He contrasted the value placed on war, with that of peace in broader Canadian society and suggested that we are undergoing a change in mentality in this area, but that there is more work to be done, he explained,

We have to continue to change, we’ve been changing, but we have to recognize and understand the way of peace. It’s astounding how much we celebrate war. William Commanda used to say when you put your attention into war you get more of it. If you put your attention into peace you get more of it. Well even at a pow-wow we celebrate warriors, but we don’t celebrate peace makers! We have a museum of war, but we don’t have a museum of peace! [laughs] So, we have to shift our values. Too often war and defence is an expression of fear. Peace is an expression of confidence.

Larry advocated that we adopt a broad view of peace that includes “all of Creation”. This is a strong call to action, when one reflects upon the nature of the relationship between Western society and the natural world and the litany of environmental challenges we collectively face.

Reciprocity

Reciprocity is another central value within Indigenous Studies broadly and in IESS more specifically. In several IESS courses, working with notions of reciprocity and

engaging with developing personal practices around reciprocity is a central theme. Participants in this study spoke to the importance of reciprocity within cross-cultural work and the need for partners to give and take in equal measure. As Gordon Kayahara suggested, “I understand that it’s not only me helping you, but you’re helping me and that gets back to that reciprocity, right? It’s an equal exchange.”

Kyle Powys Whyte reflected on his work both in academia and also with tribes in the United States and talked about how often when tribes are working with industry or government partners that the expectation is that they will operate in ways that are comfortable and customary to non-Indigenous project partners, but that this means that communities are already compromising, before a collaboration even begins, just by following the protocols and practices typical in a Western context. Yet, most of the time, non-Indigenous partners are not aware that this is the case. He explains,

I think that non-tribal people actually don’t understand that tribes already tolerate them quite a bit and are willing to tolerate them quite a bit, but oftentimes the behaviour they engage in just far exceeds what tribes should have to be able to tolerate and then they accuse tribes of not compromising enough, when tribes have already, just by virtue of engaging in a collaboration, or by recognizing the legitimacy of the US or the county or the state or the province have already compromised, right? Or even by adopting meeting times that are out of synch with either tribal politics or seasonal harvesting or whatever it is. They’ve already compromised, so a lot of times the problem is that non-tribal people don’t actually realize that when they get into a meeting the tribes have already compromised, but the non-native people haven’t compromised yet and then they say, ‘oh let’s figure out how to compromise,’ well that’s not fair, because tribes have to compromise twice and they only have to compromise once, if that, because often times they just don’t compromise at all.

Along the same vein, Kyle spoke about how tribes and community members will be involved in a research project, for example, which has immediate benefits to the researcher, but oftentimes for the tribe, the benefit is down the road, if at all. He explained his strategy to get around this,

This no different from the situation we were talking about earlier where it's the tribe has to make an immediate compromise or has to give something immediately, right? And there's no guarantee that they'll get anything in return. So, with our projects with Menominee the strategy we've taken is actually that anyone, so our group or any non-native group, too, they need to bring something to the table for the first meeting. So, in our case what we would do is develop for each tribe a profile of climate change impacts that was tailored to their particular jurisdiction, which they'd never actually seen before, because all the profiles were tailored to you know, county and other jurisdictions, which didn't make that much sense for them. And so we would come already with a benefit, and we would also then, be willing to provide additional services for them that they would let us know in the first or second meeting what those were and we'd provide them before we actually even did the work we were meeting about in the first place

This approach emerged from the recognition that the tribe has already gone out of its way to support the collaboration and that the value of reciprocity is crucial in creating a level playing field and supporting respectful collaboration where one partner in the collaboration is not continually expected to offer more or compromise more than other partners involved in the project. Yet, a lot of the participants who work for an Indigenous organization or Nation described that this often was not the case, that the playing field was not level and that this disequilibrium created tangible disruptions to project progress and relationship-building efforts.

The quotes above highlight that Indigenous Nations are often the ones compromising in cross-cultural work. At the same time, a number of participants

identified that oftentimes the community has little recourse if a researcher comes to the community, collects data and does not report back.

Sue Chiblow reflected on her work at the community level and spoke to the importance of reciprocity in these contexts,

I think learning to engage a reciprocal relationship, when you do get solutions from a community on how to do something, it's important to keep the relationship going and again it doesn't matter who you're working with, but to keep a relationship going and explain that, 'yeah, this is what you said, and this how we're going to approach it' and then work right into your timeline or your implementation plan when you're going to report back to those people on what you did and the progress.

Elder Pat Tangie expanded this reciprocity out from a cross-cultural project context to our wider relationship with all of Creation. She spoke about the importance of finding means through which to engage in reciprocal relationships with the natural world and to bring this to the center of our cross-cultural environmental work. She urged, "we need to give everybody the time they need to help us understand what's in the best interests for the continuance of life," rather than rush approaches toward a false solution. She suggested we engage in reciprocity with one another and the natural world and that we think critically about the work we are doing and whether or not it will contribute to a positive future for all beings in Creation.

In this study, reciprocity therefore relates to relationships between people working together within cross-cultural collaboration, but extends much further to each of our relationships with the natural world and the positive benefits we can provide to the natural world through our collaborations.

Relationships

The importance of developing and maintaining relationships is a strong theme already established within the discipline of Indigenous Studies and the discussions in this study affirmed the fundamental role that relationships play in building effective cross-cultural collaborations. In each of the interviews, participants related the importance, challenges and approaches they use in building and maintaining relationships in their collaborations. Participants suggested that essential elements in building relationships are learning about one another and finding ways to bring together the goals, priorities and needs of everyone involved in a cross-cultural collaboration. Participants in government and industry repeatedly spoke about the necessity of building relationships informally—hosting a meal for partners where there was no agenda or specific items to discuss, linking up with one or two people and learning specifically with/from them—before working on more formal projects together.

As one industry participant explained,

It's not just going to a community and saying, 'okay we're here to talk about this' but, it's more like, 'tell me a bit about your community. What are your interests and how did you get here and what things are you working on?' And we really dug in to learn about the community. We'd have formal discussions around developing agreements, but at the same time one partner was very patient and actually very generous in introducing me to a couple of women who were Elders in the community, who to the side of the negotiations discussions would share the stories of the First Nation and their struggles for proper treatment in the treaty land entitlement process and with their relationship with the government and their own internal challenges as a community on the social side and with language and different things and so there's a real generosity that came from building relationships.

Without knowing the history, needs, interests and so on, of one another, it is extremely difficult to develop projects that satisfy and meet the needs and objectives all of the partners in the cross-cultural collaboration. Other participants from government also spoke about the need to focus on getting to know one another and finding commonalities, which supports developing respect and supportive relationships and also helps to build trust, other key values that emerged from this study. For example, Gordon Kayahara reflected on his experience working in the provincial government and shared,

I think with First Nations it's really important. That's always what they want, First Nations always tell us, they say, 'you ministry guys, you always come to see us when you want something' we never develop relationships just for the sake of developing relationships and it's crucial. I've seen when we go in, whether it's the caribou issue or anything else and they haven't built the relationship so automatically there's not going to be trust.

Gordon suggested that government staff should meet with community members regularly to share a meal and have informal discussion to support relationship building and trust, rather than continuing the pattern of only going to visit communities when the government wants consent to develop a project or legislation. This would also address a key challenge identified by participants in this study, that of turnover of staff; with regular meetings, staff from both sides could meet and new staff would have opportunity to develop relationships to support later work. However, government systems that are in place to measure effectiveness of spending and the primary focus on outcomes and deliverables within government are central obstacles to making this happen. Gordon expanded on his thinking,

I think twice a year we should do that with each of the communities [share a meal], but again, when it comes down to it, it's 'what's the objective of the

meeting? What are the deliverables?’ and well, ‘we’re just building up relationships,’ is too hard of a sell

It is important to note that numerous participants suggested that relationship building is needed broadly from a First Nation perspective as well. Participants suggested the need for relationship building between Indigenous Nations as well as the necessity to go beyond getting to know leadership and Chief and Council to meeting with Elders, youth, and other community members in relationship building efforts. As one Anishinaabeg Elder noted,

If you want to know anything in the community, you go and ask the youth. I’ve always done that, and I’ve gotten on with them, just like I’m one of the gang....
It’s incredible, they know everything.

This need to go beyond the obvious relationships or in other words, only building relationships with people you are working with directly to build relationships with others can also support the success of collaborations. As Kyle Powys Whyte explained,

I had been developing a lot of relationships for a long time with a particular group of tribal biologists in a tribe, one of the things that I made sure I did is every time I went out there I met everybody else, so it did turn out that both of those people I was working with got laid off as a bunch of people in that tribe were laid off because of a political thing at the tribal council level, but I was able to continue my work with them because I’d had relationships with the people that remained. Therefore, building relationships among participants in a cross-cultural collaboration is imperative for the success of projects, however, building additional relationships with others at the community level, within an office, and elsewhere can lend stability to projects and help facilitate future endeavours.

Kyle also echoed the importance of spending time and building relationships outside of formal project work, he explained,

The relationship over time, should involve multiple components that will endure into the future. It shouldn't just be a one-off type of relationship. Some people might say, 'yeah, it's fine to do a one-off thing,' but I really think that for a researcher it's about positioning oneself as a resource person, an additional capacity for a particular tribe... I did that for 2 or 3 years, with no projects ever coming out of it and at some point then it kind of dawned on me, 'well, I really do know a lot of tribal folks in this region' working on things and they know me before having done any particular project.

Putting in time up front to develop relationships and a network can be a strong foundation to build upon, which can support future work and create a strong bond and trust between potential project partners. This becomes even more crucial when one considers the history of bad relationships and mistrust between Indigenous and non-Indigenous people, as Elder Lark Ritchie explained, "the level of mistrust is not conscious, it's subconscious," suggesting that mistrust runs very deep and will require hard work and determination to overcome through a sustained effort to build meaningful and reciprocal relationships.

Elder Lark Ritchie also spoke about the critical importance of informal opportunities to build relationships. He saw the benefit of car rides together, where there is less pressure to talk about anything in particular and therefore conversations can take place with less expectations. He also noted that spending time canoeing, fishing, and doing other activities out on the land created strong opportunities to build relationships in experiences of working together, of sitting together in silence and other such contexts where there is less pressure and relationships can develop more naturally.

A number of Indigenous participants spoke about the legacy of negative relationships with government, especially recently with Stephen Harper's Conservative

Federal government, but also historically and at multiple levels including the provincial and municipal levels. Participants spoke about “feeling like an afterthought” with government, which is something I heard in meetings between government and First Nations during the time of this research.

Cheryl Recollet, Director of Sustainable Development at her First Nation described how relationships feel look and feel different, depending on the project partners, she explains,

I feel like I was just a check box. I mean they only did this because they had to so we're a little bit... I don't want to say tougher on them, but it's if the relationship is genuine or not. Do you really want to be here or are you only here because you have to be? Or is it just, we have a nice guy on the other end? Right? Like it's really a 2 way street too. So I have one company that I rely on a lot, I will use their expertise, I will call them. I can pick up the phone and ask them any question in the world, whereas some of the other ones I probably wouldn't do that

Feeling as though the relationship is genuine and that there is real interest in the needs and priorities of the community is essential in building cross-cultural relationships and building effective collaborations in environmental contexts.

Kathleen Padulo reflected upon her experiences working provincially with the Chiefs of Ontario and highlighted the importance of formalized relationships to act as a guide for relationship building and maintenance between partners, she explained,

Ontario did sign a political accord with First Nations not long ago, between the Premier and our Ontario regional Chief and that's built on a nation-to-nation relationship and so, moving those forward, whether it's at a Federal, or Provincial level and saying, this is how as Indigenous peoples in Ontario, in Canada, we want to be respected. We want to be working with you together as opposed to after the fact.

Anishinaabekwe Sue Chiblow spoke about the continued relevance of the original treaties in guiding our relationships, she expanded upon what this means from her perspective,

Developing long term relationships, is a challenge for government because of their turnover of staff but it's also a challenge at First Nation communities because we move around and do different things and move into different positions. But, I think we were always taught and even a huge part of our ceremony is looking back, and you hear people all the time asking, 'why do they keep going back to the treaties?' Well, those were the foundation of our relationship and I think there's always got to be a component of looking back at what happened, and now how do we learn from that and make it better?

Treaties can be a guide for how to return to a more respectful relationship, not only as legally binding documents that are enshrined in law, but also in terms of the value placed on working together at a government-to-government level and fostering peace, friendship and respect between Indigenous and non-Indigenous people.

Understanding the importance of relationships, not only between people in the collaboration but also between people and the work at hand is a critically important component of cross-cultural work. According to participants in this study, the time required to build positive relationships and overcome the history of bad relationships is often under-estimated or even if the importance is understood, there remains challenges in knowing how to do this effectively or having the proper structures in place to support effective relationship building.

Respect

Respect was one of the first values participants spoke about when exploring the key values in cross-cultural collaboration. As one non-Indigenous government employee

explained, “we’re going to respect each other, we’re not going to say anything discriminatory or offensive, no personal attacks, that sort of thing. It’s good to remind the group of that.” This participant explained that they brought in an Anishinaabeg facilitator to help set the foundational tone for the working relationship on this particular project and that person highlighted especially the need for government employees to respect the history, recognize treaty rights, and to be open to listening as a form of building respect between everyone at the table.

For participants in this study, respect related to how individuals within a group speak to and treat one another, the need to respect differing viewpoints, approaches and perspectives and can be embodied through skills such as active listening and other values, approaches and skills discussed in this chapter.

Gordon Kayahara spoke about the growing focus on bringing Traditional Ecological Knowledge (TEK) into government policy and initiatives and suggested that this was frequently carried out in a manner that did not respect the historical context of each person’s relationship to TEK and in particular the impact of residential schools on Elders and Knowledge Holders, he explains,

People will say, ‘oh we’ve got to bring TEK in’ and you know, ‘you Elders can tell us all about what it’s like on the land and this and this and this’ and it’s true they have this knowledge but, you’ve got to remember, the Elders were the residential school generation and they went through a lot so that’s a big expectation that we have of them.

There is a great irony that the government, which once sought to destroy Indigenous Knowledge systems is now seeking that very same information, but often without awareness of the historical context. This occurred in a meeting I attended with government and First Nations during this study. It was the first time the people had come

together and government representatives repeatedly asked about detailed TEK from those in the room. There was a lack of awareness about how to respectfully engage Elders and Knowledge Holders and the government representatives did not seem aware of the history of exploitation of Indigenous Knowledge or lack of trust in sharing TEK. The Indigenous representatives in the room were reluctant to share and the meetings stalled.

Respect in this context means acknowledging that Indigenous Knowledge systems have their own processes and protocols for sharing knowledge and a foundational component of knowledge sharing is respectful relationships. Beyond respecting the protocols for engaging IK systems is a need to respect the difficult history, including residential schools, that impact on the relationship between Indigenous and non-Indigenous people in these contexts and also impacts the relationship Indigenous peoples' have with their own knowledge systems. Acknowledging and respecting this legacy and creating collaboration that does not force knowledge sharing upon Indigenous peoples is an extremely important element of respectful engagement. As Kathleen Padulo shared, "we need to go back and start to build a relationship based on trust and respect so that we can move forward to build that nation-to-nation relationship."

One participant from government also explained the importance of respecting Indigenous approaches and principles in cross-cultural collaboration,

Certainly, working with Aboriginal peoples, or organisations, we want to respect their main principles. It could be, for example, a path forward involving youth, or Elders and just respecting that and making sure you schedule the time for that. Participants in this study suggested that this involves co-designing approaches to collaboration, ensuring that Indigenous participants are active partners in setting agendas,

developing timelines and approaches, and other foundational components of cross-cultural collaboration.

Participants also spoke about the importance of respecting one another's personal and professional boundaries in these contexts. This relates to knowing and respecting the limits/abilities of those involved (for example, how much power/influence a government participant might have to make decisions) as well as respecting that there may be diverse approaches to meetings, achieving goals, and engaging in shared work and finding ways to bring these in to respect the various approaches to communication, learning and engagement for the various parties involved.

Responsibility

There are several ways in which the value of responsibility was discussed in the interviews. The responsibility we have to ourselves, to those we collaborate with, to the nation as a whole, or to future generations. A sense of responsibility was often a guide for people in doing this work, whether they be working in government, industry, a First Nation, or academia. But, what is responsibility? As Algonquin Elder Larry McDermott explains, "Another way of saying it is the ability to respond. So, to me, the way we know that we're successful is the ability to respond and the commitment to responsibility." Responsibility is having the ability to respond to those you work with, to yourself, and to the world around you in effective ways.

Central themes around the value of responsibility in this study ranged from the micro to the macro level, in other words from our own day-to-day physical realities and actions toward national, international and spiritual levels. Some examples of the day-to-day micro level responsibilities from this study include admitting when you have made a

mistake and taking responsibility for your actions, being careful with language and seeing how you can influence the world for the better given your unique position. In terms of the national, international or macro level participants discussed the importance of seeing one's self as a treaty member and engaging in global geopolitics and international bodies like the United Nations. Therefore, responsibility emerges as a means of turning values into action through daily practice and ways of being as well as through personal reflection and engagement with grand narratives. This section will offer insights from the participants in this study as to how one can enact the value of responsibility as they work cross-culturally.

Beginning with the micro level, the need to be careful and responsible for one's actions is paramount in day-to-day collaborations. This can relate to how we take responsibility for our small mistakes or how we use language with one another. As Elder Pat Tangie explained,

The language is limiting. So, we have to be more cognizant of the words that come out of our mouth and that was always something that the Elders said too, was to be aware of what's coming out of your mouth and be responsible for it.

Lynne Davis shared some of the approaches for reflection that she uses with the students she works with to encourage engagement with their personal responsibility,

They have a responsibility to act, wherever they are right now and we try to model that through the exercises we engage in. We think about, how would you actually apply this? What is this like in the world around us? How do you act in the world based on this understanding? So, that's important to me philosophically and ethically as someone who feels a responsibility for future generations.

This quotation suggests that we have the ability to influence and create positive change regardless of where we may be in our learning journey and these approaches can also be

engaged in cross-cultural collaborations to support accountability to partners in collaboration. Engaging that feeling of responsibility and acting on it in the ways we are able emerges as an important piece in cross-cultural work.

The importance of responsibility was also addressed by Lilith Wyatt, who spoke about how she brought with her to her role as a coordinator at an environmental not-for-profit organization a commitment to addressing Indigenous rights and reconciliation. Prior to her effort to bring these issues to the fore, they were not being effectively addressed by the organization and it was through her individual sense of responsibilities that reconciliation and Indigenous engagement became more of a priority for the organization. Robyn Smith, who also works in the not-for-profit sector, but with an Indigenous education organization described this as, “taking responsibility, picking up your bundle and working towards reconciliation and relationship-building.” This suggests that for many people who engage in this work, a sense of responsibility to improve relationships, address on-going colonialism and racism and create positive change in the world is at the center of their cross-cultural work.

Taking this theme deeper, Gordon Kayahara spoke about the need to “unsettle” as a critical element of training for effective cross-cultural work. He suggested that non-Indigenous or settler people need to move beyond a fascinated gaze toward Indigenous people and instead to critically engage with their individual roles and responsibilities in the settler colonial system of oppression, in his own words,

It’s too easy just to dismiss and say, ‘okay, that that’s very interesting’ and ‘yeah when I was in Toronto I used to go to the multicultural festival...’ but no responsibility for your own component.

In reflecting on his own role in government and responsibility as a treaty person, Gordon plans to take his knowledge of western science and government systems and work with Indigenous Nations towards recognition of their rights and legal title in his upcoming retirement, while currently he works within the system to create change where he is able. Another non-Indigenous participant described the internal struggle involved with “unsettling” and working through her experiences in working cross-culturally to determine what she was and was not responsible for,

For me, being white, of British descent... I can take it personally or not personally but there's a certain feeling of personal responsibility for some of the past wrongs... (Community members) can get into some pretty specific examples of things that some of our ancestors have done. That changes the conversation too because, well, what do I do with that? How do I respond to that? And then how do you deal with just the weight of it all?

To me, this personal reflection suggests that determining our responsibilities is an on-going and dynamic process. Additionally, this quotation illustrates the deep self-reflection that is central to effective cross-cultural work and the link between developing skills in self-reflection as a means of embodying the values central to cross-cultural work and taking responsibility.

For many participants, the notion of responsibility goes beyond our individual responsibilities to one another to our collective responsibilities to our Nation and to Creation. As Anishinaabeg Knowledge Holder Sue Chiblow explained in our interview, “instead of saying I have a treaty right it's, I have a treaty responsibility. We all have responsibilities to one another, to the Earth, to everything that is around us, to our families and all kinds of things.” From this perspective, treaties and original instructions can guide our understanding of personal and collective responsibility.

For Haudenosaunee Elder and Knowledge Holder Henry Lickers, responsibility is of spiritual importance and spans generations, he explains,

Go back. My great grandmother in Canada had to fight to be human. Natives weren't considered human when she was little. My grandmother had to fight to have a place in Canada. My father, he had to fight to know that he had skills to be a person in this society even though he didn't vote and didn't do a lot of things. So, think of the change that has taken force in just that little bit of time. My fight now is, how do I decolonize this whole of North America? And my son and daughter will build off what I did. I just need to make sure that I give them the tools to do it. And the beauty is that it's not only my sons and daughters. It's like what Thomas King said, in the *Inconvenient Indian*, 'you can't get away from it now because you've heard my story and you carry that story with you. So don't ever say that you haven't been told because you have been told.' As I say to my graduate students, that's the danger. Once you know the story you have the responsibility for that story, to carry it forward and use it...

My Grandfather told me a story, 'So, there will come a time,' he said, 'in the future where there will be an aching in the western society and they will be the ones coming to you and saying 'we don't want to be that way anymore, we think we remember, we think we remember stories that were told to us long ago about how to live on this land.' 'Do you know any of those stories?' And you'll go, 'ya, it just so happens we do!'

Now why would the Native People still be here? If the Creator wanted us gone we would have disappeared in an instant and the new society or whatever would have taken over. So why have the Haudenosaunee existed, and the sacred Circle of 50 Chiefs still meeting after 1200 years, 300-400 years of that under occupation? Why? The why is that the Creator still has a responsibility for us. The responsibility is to go out and tell people about the Great Way... I can only take it so far, but I will die and when I do you'll have the stories, so now it's your

responsibility to carry them on and teach them. And will it change? I think it will but, is it that bad? I think what happens is that as we move the story forward and keep looking at it and keep working with it, the more minds that we bring to that story, the stronger that story becomes.

Many of the Elders in this study echoed the sentiments in the above quotation and made reference to the need to share the teachings that their Elders shared with them. As Pat Tangie put it she feels a strong sense of “responsibility to carry the messages that the Old People shared with me” and work toward living according to the Original Instructions. Envisioning our collaborative environmental work as a shared story that spans generations and engages participants on multiple levels (individual, collective, spiritual, emotional, etc.) can imbue the work with a depth of meaning, which can help move through difficult dialogue, challenges and conflict toward a more just and sustainable world for everyone.

Space

The participants spoke about or made reference to the ‘space’ occupied by certain people at different times, space emerged as a conceptual understanding of the place where the knowledges come together—the dialogue, problem-solving, conflicts, sharing, etc.—and cross-cultural work takes place. Lilith Wyatt, who worked with a conservation organization at the time of our interview linked the creation of cultural corridors to those her organization was working toward ecologically. She explains a central value, the mindful creation of shared space and organizational commitment to engage cross-culturally, in describing the organizational values her organization brought to their collaborative work,

The third was valuing and understanding that our organizational mission included cross-cultural work. This is one way to extend the space that requires cross-

cultural collaboration. We're talking about corridors here and cultural corridors are as important and are connected to ecological ones.

Therefore, for her organization, the creation of opportunities for cross-cultural engagement is built into the foundational principles and approaches where working together is fundamental to the outcome. One example Lilith provided was the development of an organizational land acknowledgement to share on their organization's website along with other materials. She explains,

The land acknowledgement, I think, is another piece that really felt like a statement of not just values like a list that underpins our cross-cultural approach, but it was important because of the way that the whole board really engaged in a conversation that unearthed uncomfortable stuff, a lot of which was about values. That process was invaluable.

This example also highlights an approach and shows how the process of learning and relationship-building needed for organizational partners to develop and agree upon a land acknowledgement facilitated a discussion of values.

Robyn Smith spoke about how the educational organization where she works, created different spaces that center each learner's experience and respond to their needs, for example,

Informal opportunities for learning are important and we try to give lots of space for that... we have such a great team and we have a good crew of volunteers and sometimes Knowledge Holders. There's so many people that are kind of just there holding space, learning, participating, having fun, like if a kid says, 'I don't want to be in the tipi, right now, I want to be outside,' we generally can facilitate that.

Robyn linked the valuing of creating and holding space to their ability to be flexible and adaptable, and to the values of responsiveness and responsibility. In this way, we can see how values come alive in the practice of educational programming

where the learning community is constructed of people with different knowledges, across generations, and with different roles and responsibilities.

This notion of space has come up in my writing and reflections as well as in discussions with interview participants. Here is one excerpt from my interview with Robyn Smith, about creating space in IESS,

I've started shifting my thinking toward how do I then create space for students to be able to recognize what their gifts are? To know that they have unique gifts and to begin exploring themselves to try to find those and to create space for all those different ranges of capacity and gifts

For me, space is something I try to be consciously aware of in terms of practice in the classroom, but also in my collaborations and relationships. Here is a personal reflection on my influence in a shared space:

I'll assess myself after a meeting or class and sometimes I feel like I was kind of a dominator in that space, just because I think I talked more than my fair share and I try to be aware of those things

Robyn also discussed how it can be uncomfortable to reflect upon how we behaved in a shared cultural space, but, that such critical awareness is important, she explains,

Finding that balance between hearing something and being in that uncomfortable space and recognizing like maybe what you've said, that it might have been wrong and what you've heard that's making you feel a certain way, or what you did, recognizing that and sitting with it, but not getting mired in it.

The notion of space in cross-cultural contexts will be woven throughout the discussions in this dissertation.

Spirit and Sacredness

Indigenous participants spoke about the sacred and the value of sacred spaces for everyone in creation. An Elder from Missanabie Cree shared how this was a central

value in his cross-cultural work and how he tries to share it with those he works with, particularly those in government,

I've been negotiating with MNR, with the MNDM, for quite a while and every meeting was the same, 'we don't understand,' I said, finally after dozens of meetings, I said, 'what is it you don't understand? We can't make any plan, we're putting on the table that this is a sacred mountain, we don't want you logging in there, we don't want you prospecting, diamond drilling or nothing. We want to protect it, that's all. So, what is it you don't... don't colour it up with everything else...' So, 'the bottom line,' I said, 'if you don't understand, are you all free next week?' They were and I said, 'you come with me and I'll take you on Manitou Mountain and then you'll understand.' So I took them there and one fellow was a manager for MNR and I took him up there and I said, 'you see what's out here? It's pristine, clear water, the whole works and no pollution thus far,' and I said, 'when we talk about it, you go to a lot of meetings with the First Nations and the thing is that when we talk about our children and grandchildren, we're not just talking about our grandchildren, we're talking about yours.' Right? And basically, if at some point in time down the road, when your grandchildren are going to ask you, 'Papa, we knew you were in a management position with MNR, why didn't you do anything to stop this?' Is this the legacy that you're leaving? So, it's not just about our kids, it's about everybody's kids and when we took them to Manitou Mountain, we did a ceremony then and everybody talked about things and having the need to protect a sacred place. It's like asking them, 'what's sacred to you? Is your marriage sacred? Is the love that you have between you and your husband or your wife sacred?'

Fighting for the protection of sacred sites, knowledge and sacred medicines has been a theme in this research and a theme in the experiences I have had working in these cross-cultural spaces between government, industry, First Nations and others. The quotation from the Elder in the excerpt above, showed how direct experience with the sacred is one way to begin to know what sacredness is.

Gordon Kayahara shared a story about cedar and working with First Nations on the issue of logging sacred cedar in Northern Ontario. From his perspective working within government, he shared that ultimately there was a need to listen without an agenda, to talk, share and build trust and to be comfortable with changing their expected course or in other words, to accept that cedar is sacred and that it should not be logged. To Gordon this was deeply linked to building trust on both sides, so government staff knew that the First Nations really did believe cedar was sacred and not that they simply wanted to log it themselves later, which was something government feared. For Gordon, that spiritual relationship held such strong sway and should be deeply respected by government.

Yet, many participants reflected that oftentimes, non-Indigenous people were uncomfortable bringing spirituality into cross-cultural collaboration or had difficulty understanding or connecting with the idea of the sacred. As Elder Larry McDermott suggested, this is necessary to build a shared understanding of our “spiritual connectedness” by cultivating a good mind and a good heart.

At the same time, individuals in this study described that their own experiences with the sacred, spirit and spirituality were important anchors in their lives for making meaning of their experiences and supporting themselves through the difficult and trying incidents of working cross-culturally.

Trust

Trust was another foundational value in cross-cultural environmental contexts discussed by participants in this study. Trust—closely linked with the importance of relationships and a number of the skills and values in this study—was directly addressed

in seven of the interviews with allusions and reference to the importance of trust in almost all of the conversations. Discussions of trust often centered around the historical legacy of colonial approaches and policies, which continually eroded the basis of trust between Indigenous and non-Indigenous people in both a legal and moral sense of the word.

It is helpful here to offer insight on the etymology of the word trust, which is defined as the belief in the reliability, truth/honesty, ability, or strength of someone or something (Miriam Webster Dictionary, Online Etymology Dictionary). Trust derives from the Old Norse word *traust*, which means, help, confidence, protection, and support. Beginning in the early 15th century, the word took on additional legal meaning as well (Online Etymology Dictionary).

Given these definitions, trust can be considered a collection of linked values, many of which are discussed in this section. Therefore, a person or group's collective embodiment of values or how honest, truthful, and reliable they are and believe each other to be, are key determinants in the development of trusting relationships and the effectiveness of cross-cultural work. On the other hand, when relationships are characterized by poor communication, deceit, ambivalence, or lack of reliability among partners, the cross-cultural work suffers. Gordon Kayahara described the connection between the quality of relationships and trust, "I've seen the ministry, when we go in, whether it's the caribou issue or anything and they haven't built the relationship so automatically there's not going to be trust."

Participants in this study suggested that the absence of trust results in defensiveness and fosters poor communication, which then leads to an inability to move

forward on collaborative work and engage in dialogue with one another. For example, Gordon, like Kyle Powys Whyte and others in this study advocate for building and maintaining relationships prior to beginning work on projects or negotiations, “you’ve got to meet, you’ve got to build up the trust, and when you build it up, then you can have a dialogue and they can listen to what each other are saying without being all defensive.”

Many participants described instances of projects where there was an absence of trust or effort to build relationships or perhaps worse, approaches where researchers and other practitioners preferred to view their work as outside of the realm of politics and trust and focus solely on their individual projects without seeing the bigger picture connections. Kyle Powys Whyte explained this from his perspective,

I think a problem with their approach is that they were saying, ‘okay, you need to all be at the table together and explain each other’s methods and there’s no politics or trust issues’ or anything integrated into that process, totally separate from that, and I don’t think that will work because when tribes think about what they should share of their knowledge systems and so on, they’re constantly intermingled with a number of political issues and issues related to trust and so on, and so for somebody getting into this kind of work, a key thing is that they’re going to get attracted to these approaches that try to separate out the realities... in this context, you can’t do that, because the political questions are so tightly coupled with the knowledge questions and the trust questions and things like that, that you can’t not talk about those

Elder Lark Ritchie provided insight on an indicator that trust is beginning to develop in a group, he suggested that,

If you can get to the point where people are telling you stories then you’re on a level that they’re willing to trust you and build a bond. It’s hard to do just when you’re talking ‘this tree here and we’re going to plant it this way’ and stuff like

that. It's good because you're in the bush, but it's a situation where there's conflict already.

This quotation relates to the approach of building relationships through unstructured collaboration and communication, prior to working together on the difficult issues and challenges in order to establish a foundation of trust, which can anchor the group through periods of conflict.

Vocation

Participants spoke about their career as a calling that “pulled” them into this cross-cultural work. Often this was strongly linked with their spiritual awareness and beliefs, which called them to work towards peace, the continuance of life and to the benefit of future generations. Elder Larry McDermott explained how his experiences in doing this environmental work galvanized him to continue on the path despite the difficulty and challenges he encountered and how those moments were often the most powerful catalysts for continuing with cross-cultural work,

We've got a pretty serious problem right here, if you think about it and it impacts all of us, no matter what. When a group of people because of their culture, their looks, you name it, their religion, when they're being oppressed, we're all oppressed and so, it's some of the darkest moments have been the most revealing of how important this work is.

To me, reflecting upon the reasons behind why we do this work is an essential element of personal reflection in these contexts. Many of the participants suggested that if the purpose of engaging cross-culturally was to gain recognition or simply advance your own career that these motivations may not sustain practitioners through the difficulty of this work.

Thus, the very challenges that participants worked to address in their collaborations often reflected their underlying purpose for engaging in this work in the first place. This foundation of shared care for finding solutions to particular challenges is a strong base from which to build relationships. Participants suggested that focusing on shared concerns and motives are an important means of moving through difficult dialogue and building relationships. Therefore, working with one another to identify and clearly articulate the shared priorities underlying the work can support collaboration and sustain practitioners through the inevitable challenges and conflicts that arise through collaboration.

Valuing Indigenous priorities and quality of life

Participants in this research spoke about why they engage in cross-cultural environmental work and, as mentioned above, the need for us each to interrogate our reasons for engaging in cross-cultural projects. The values that underlie this theme are those of improving the quality of life and capacity for Indigenous Nations. As Kyle Powys Whyte explained:

I will never put my own research goals or individual agenda ahead of a tribe's and I'm willing to pay the consequences of my own job for doing that. I always stick to that. Because for me, I'm always going to be in a better position to benefit than all the tribes I work with, for a number of reasons, but that's oftentimes what messes up collaborations is that people see you primarily as a self-serving researcher or self-serving facilitator or something like that.

To me, this quotation acknowledges that researchers or academics working in a university setting occupy a place of privilege and that for those working cross-culturally, they value being able to use that place of privilege as a tool for creating positive change

for the Indigenous Nations with whom they work. This means valuing the priorities, needs, and interests of Indigenous Nations and organizations over your own organization's interests and priorities in order to disrupt power imbalances. This quotation from Kyle also suggests that for those who continually put their own interests and needs ahead of their Indigenous partners that this can be fundamentally detrimental to group collaboration and erode the quality of the relationship between those in the collaboration and also has the potential to influence future projects with different people from the same or similar organizations. Kyle suggested that if one does pursue their own interests ahead of those they work with that they will often be seen as exploitative, which will impact their ability to find project partners in the future. The reality that often priorities, timelines and needs are out of synch between project partners is something that was discussed in a number of interviews, this will be explored further in the next chapter under challenges.

Nancy Rich (2011) has discussed the purpose behind IESS-type education and concluded that people are doing this work for the betterment “of everyone” suggesting a broad purpose behind IESS-type education and collaboration to improve environmental and social conditions for everyone, especially Indigenous Peoples.

Similarly, one participant, who works for an international engineering consulting firm discussed that for him and his company, their top priority is protecting the environment and supporting the interests of the communities they work with, he expanded on this notion in our interview, “I think we have our own brand to protect as a company and if there's a company we're working with that's doing something bad or we don't think it's right, then we'd rather not do the project.” This was also discussed within

the context of corporate social responsibility and the high level of accountability companies are facing with the advent of social media and online communication.

This section has highlighted the values that participants in this study found central to working cross-culturally in environmental contexts. Throughout this discussion, I have attempted to highlight the ways that these values can be operationalized in cross-cultural work and to underscore the interconnectedness of these values. Values such as relationships, respect, responsibility, honesty, gratitude, reciprocity, and the others discussed underpin the following discussion about attributes, knowledges, and skills.

Attributes

Participants suggested attributes that are central to cross-cultural work. Personal attributes are elements of a person's personality; traits that they may have been born with or that may be cultivated over time. Attributes are closely linked with values and can be seen as the embodiment of values through the features or characteristics of an individual.

Authentic

Authenticity emerged as important an attribute in the interviews, especially as one participant highlighted, the relationship between authenticity and trust, a central value in cross-cultural work. This participant who works in the Ontario government shared her perspective,

I've seen a lot of people who are new in that situation (a community setting), especially since working for government. It's interesting how few government staff have that kind of experience. There are many reasons, but here are a lot of people who are new to going into meetings or going into discussions with communities. I've watched others go in, let's say it's about an environmental project, and they try to be somebody different, or they try to put on this front, and people can tell, you can totally tell. It just makes community members think,

‘okay, what is this person really here for?’ ‘what are their real motives?’ and
‘okay, you’re telling us this, but what do you really mean?’

Participants in collaboration are consciously or not, gauging one another’s authenticity, if they should believe what others say, and whether or not to share their own knowledge and experiences as a result. On the other hand, when participants embody their values and practices, authenticity shines through, as Elder Pat Tangie explained,

You don’t have to tell anybody whether you’re a spiritual person or not. People can feel that. My dad always used to say that you never have to tell anybody what you believe in or who you are because it always shows in what you do... What the Old One’s were talking about, really, was how important it is not only for us to walk the talk, but the more we can believe it and our heart feels it, the more it will come to fruition.

Lilith Wyatt spoke about creating structural level opportunities within organizations to honour Indigenous rights and approaches, regardless of who is at the table on any given day. She explains,

You could say any board meeting is a cross-cultural context, but we haven’t had any kind of structural recognition of that during board meetings, like an opening or closing, or the use of a talking circle. And the other thing, is that if the Indigenous voices are not present, there’s also an opportunity, to step up to the plate and have a non-Indigenous person make some sort of statement to the extent that they’re comfortable, you know they’re not reading out the full thanksgiving address or speaking in another language necessarily, but even just saying something to acknowledge the land and express gratitude to open the meeting.

In this context, I understand authenticity to mean relating in a way that is meaningful to each individual, grounded in each person’s worldview

Compassionate and Empathetic

A number of participants spoke to the significance that compassion and empathy play in cultivating trusting relationships in cross-cultural collaboration. Elder Larry McDermott provided guidance on the role of compassion and empathy in cross-cultural work,

I think it's important that people in the circle recognize that there're people who are at different points on their journey, in terms of growing and their capacity, etc. and so, those that understand the impact of self-centeredness, for example, need to be compassionate and patient with those who indulge themselves in self-centeredness, otherwise you just create more it

The focus then shifts from other people's self-centered behaviour to one's own ability to respond with compassion and empathy to the situations others find themselves in. Interview conversations in this study also explored the role that empathy can play in addressing conflict in collaboration, where one truly seeks to empathize with someone who is sharing a concern, rather than responding with negativity or staying stuck with one's own perspective. The ability to empathize, even when something may feel like a personal attack, is situated in an historical understanding of context and Indigenous-settler relations. Participants in this study suggested that being able to see the bigger picture within which a comment or conversation may be nested, can support cultivating compassion and empathy in the moment. Robyn Smith explored this theme in our conversation,

Certain people, will say certain things and they're kind of harsh and you may feel hurt, but it's just learning to think about where it's coming from and how it's meant and how you can grow from that.

In thinking more deeply about what empathy looks like in these contexts, Sue Chiblow shared her thoughts,

I think people need to have empathy not sympathy, because nobody really wants sympathy, but people want to be understood, right? So, they have to have good listening skills. To be able to listen to understand, not listening to react. I also think speaking skills are important, because you really have to be able to understand, so you need to be able to articulate that understanding and have analytical skills and analyze to make a connection.

A number of participants spoke to this need to make a connection in engaging empathy or compassion and also as a central element in resolving conflict. Elder Larry McDermott described empathy as follows,

I feel that empathy is another source of intelligence and if we can empathize with those that are disadvantaged, the poor, if we empathize with anyone whose human capacity is being interfered with, because of gender, because of, religion, any aspect of culture, we need to understand, what are the implications of that?

Empathy and compassion can be cultivated through dialogue, meditation and the mindful effort to connect with and relate to those around us. Further exploration of how empathy and compassion can be cultivated within IESS pedagogy will be explored further in chapters six and seven.

Connectedness

Connectedness is a strong theme in environmental work, honouring and recognizing the interconnectedness of humans and the natural world and of each of us to one another. Participants in this study advocated for IESS programming to cultivate a sense of connectedness with one and other and the natural world. Algonquin Elder Larry McDermott explains,

As one of my Elders used to say, it's important not to cultivate separation. To find cultural tools that show that we all come from the same source of life and that we have similar responsibilities. We may have other quite different cultural systems that help us to see that, to activate that, to live by those principles.

This attribute of seeing oneself as connected to everyone and the world around us has tremendous transformative potential for learners. Having witnessed two iterations of students move through the Introduction to Indigenous Environmental Studies and Sciences during the course of this research course I have seen that it is common for a large number of students each year to reflect upon how Haudenosaunee and Anishinaabeg traditional teachings have taught them that they are connected to creation and therefore not alone. Many of our students share in their reflections at the end of the course that where they once felt alone and isolated in the struggle to address environmental and social justice issues, they come to realize their deep interconnectedness, which leads to a greater sense that they can create positive change in the world around them.

Inquisitive, curious

Most participants in this study at one point or another in our conversation spoke to being inquisitive or “questioning things” as an attribute that guides them forward on their path in collaborative work. Elder Lark Ritchie explained how his curiosity continues to drive him to engage cross-culturally, “I do it because I always have the question, what is actually going on?” Cheryl Recollet Sustainability Director in her community shared this advice for others who are moving into an environmental role in their community, “I would just say be open. Be understanding and make sure you’re getting the right information and create collaborations that are meaningful.” Cheryl suggested that central to being curious was asking questions and learning more about what industry or government are aiming to accomplish.

One non-Indigenous participant described her experience of learning about Treaty Payment days and how what she learned urged her to ask questions and helped her work through the disorienting information she learned as she embarked on a personal journey to learn more about Indigenous-settler history,

I didn't know what to do about that (situation) from a discomfort level other than to just ask more questions and to be open about not having a great deal of knowledge in this area but that I was very interested to learn more. It certainly was one of the turning points of okay, what else don't I know?

Other participants spoke about the role of inquisitiveness in forwarding dialogue. Therefore, questions emerge as another technique for relationship building, learning about one another and coming to consensus on issues at hand. Thus, being inquisitive and curious, as opposed to closed off or unengaged emerge as beneficial qualities in cross-cultural collaboration.

Open-minded

Many participants discussed the need for people who work cross-culturally to be flexible, to be able to think on their feet, to be open to change, adaptable and open-minded. This open-mindedness can be reflected in the creation of a variety of inclusive group processes that honour the diversity of cultures engaged in the project, as Elder Larry McDermott noted,

It gets back to that question about open-mindedness and about understanding that there's more than one epistemology, there's more than one culture, and when we develop the capacity to have an open mind, to learn about one another's cultural strengths and incorporate them in the work we're doing, then the possibility for achieving better results is greatly increased. So, every circumstance demands different approaches based on cross-cultural leadership, there being leadership from the different cultures that are involved.

Participants in this study portrayed open-mindedness as “keeping your mind open to a variety of circumstances” and being willing to change your thinking, perspective, approach, practices or agenda given the discussions and priorities that emerge through cross-cultural interactions. Participants in this study shared that open-mindedness is an essential trait in effective cross-cultural contexts for environmental practitioners and also for educators in these contexts.

According to participants in this study open-mindedness in cross-cultural collaboration means being open to new ways of doing things, alternative approaches to dialogue and decision-making, and to the principles that underlie cross-cultural work. Yet, many participants noted that provincial and federal governments often approach collaboration with Indigenous Nations with principles and plans already in place, which undermines their ability to be adaptable and open to alternatives. Anishinaabeg Knowledge Holder Sue Chiblow explains the centrality of open-mindedness,

How do we get them to understand that we’re sharing these lands? We need to find a medium and I think people really need to have an open-mind. That’s where true collaboration can begin and if people find that common ground then we shouldn’t have a problem... and you know, if your opinion is different than mine, does that make you a bad person or me a bad person? Not at all, right? We just have different opinions and there’s nothing wrong with that. This is being respectful.

Maintaining openness is an on-going process, which can be supported by continuing to learn and encounter new ideas and approaches. Open-mindedness is closely linked with how individuals respond in given situations. Several interview participants noted that open-mindedness was linked to active listening skills and the ability to engage in dialogue without being defensive as well as the capacity to hold multiple contradictory

truths or opinions simultaneously. This means acknowledging that there will be differences of opinion and approaches and being willing to approach cross-cultural work in a diversity of ways. Elder Larry McDermott shared his reflections on open-mindedness,

Recognizing that sometimes we think we're open-minded when in fact we're not and I think there are degrees of open-mindedness. I think a person that is telling themselves the truth knows that open-mindedness takes work. It's not like you can flip a switch and say 'yep, I'm always open-minded,' it's something that you have to be diligent about all the time. I think recognizing that there are other ways of knowing is actually much harder to achieve than most would think. You know, the people that parade that they're open-minded are usually the very people that have reached a wall. It's almost an announcement that they're not and I think the only way you can remain open-minded is, again I'm thinking of Elders who are constantly looking at other cultures, and either looking at it in relation to their own culture but looking at other ways that similar knowledge, similar principles, can be both understood and shared. And I think it's important actually to not get too comfortable and isolated especially in one's culture, whatever it is.

This quotation has given me much to think about and reflect upon, in terms of my own thinking and the extent to which I am able to keep my mind open, not only in cross-cultural work, but elsewhere. Developing self-reflexivity with regard to our thinking and practice and holding ourselves accountable to being open-minded in our work are practices emerging from this study that are related to cross-cultural collaboration in environmental contexts.

The attributes highlighted above emerged through the interview conversations that took place as part of this study. There are likely to be additional attributes that are helpful in facilitating cross-cultural collaboration depending on the context and cultures

involved. Next, I will describe the knowledges that participants in this study suggested was essential to supporting respectful cross-cultural collaboration.

Knowledges

In each of the interview discussions, some time was spent exploring ‘things that people need to know’ in these cross-cultural environmental contexts. Primarily, these conversations focused on essential knowledges in respectful and ethical cross-cultural collaboration, but at times the discussion of essential knowledge was broader, including elements that are helpful in doing environmental work regardless of the context. Much of this section is focused on knowledge that scientists and environmental practitioners need in order to respectfully engage cross-culturally, regardless of their disciplinary background. It can be argued that these knowledges should be included in programming in the environmental sciences and studies or any field (biology, chemistry, water resources engineering and resource management, etc.) where practitioners will inevitably work cross-culturally with Indigenous peoples. They should also be shared with practitioners already working in the field who may not return to formal study.

There are close linkages between the essential knowledges and the required skills that will be described in the section that follows. In chapters six and seven, these recommendations regarding knowledges, skills, values, and approaches are synthesized into the IESS pedagogy and curriculum design.

Awareness of worldviews, knowledge systems, and ethical exchange

Participants spoke to the centrality of having an awareness of worldviews and knowledge systems in respectful collaboration. This refers to an awareness of one’s own worldview as well as the worldviews of those that one works with. At a basic level, this

refers to knowing one's own worldview in depth—the beliefs, values, and practices that guide them—as well as being aware that other worldviews exist and respecting that no one worldview is more or less valid than another.

Building on an understanding of what a worldview is and the components and characteristics of one's own worldview, is developing consciousness about knowledge systems. This involves understanding what a knowledge system is, where knowledge comes from, and how it is validated within a given knowledge system. It is important to develop this understanding with respect to western science knowledge systems as well as the knowledge systems of those with whom one is collaborating.

Participants in this study suggested that developing consciousness around worldviews and knowledge systems can illuminate underlying values and belief systems, thus improving one's knowledge about oneself, while also creating pathways for better cross-cultural collaboration. At the same time, participants suggested looking to the roots of your own knowledge system to connect with the ancient knowledge systems that underpin your current knowledge system. As Gordon Kayahara explained,

You've got to get to know yourself and your own cultural underpinnings and what's influencing you... if you go back to pre-Christianity and when Christianity started, you had that whole agnostic way of Christianity so there was the two and the thinking was different, it wasn't the one god, they were more holistic thinking. If you went back, if you were Christian and you went back to that and looked at that. Or the Druids, right? I went back right into Asian culture and Asian thinking and back to that root thinking. I think every religion has root thinking and you go back to that and you understand it, then when you get introduced to the First Nations thing, it's not such a shock. When you understand yourself, where you

come from and what your influences are, then when you get exposed to others it's not such a big leap

Therefore, developing an awareness of one's worldview, cultural underpinnings and knowledge system can prepare one to encounter and engage with others.

Another crucial element in thinking about and reflecting upon worldviews and knowledge systems within cross-cultural collaboration involves letting go of the idea that "mine is right." This means making space for complexity, opening to the potential for multiple truths and contradiction, and not asserting one's way of being and knowing as better than another's. Gordon Kayahara shared more of his thoughts on this theme,

For example, Traditional Ecological Knowledge, I've seen it amongst, even well-meaning people who want to get it into the system and they're always saying, 'oh yeah, we've got to talk to the Elders and those who have knowledge of the land and we can bring it in and then we can take what we think of the science and we can bring it together and figure out what to do,' but there's an assumption that a materialistic worldview is the correct worldview and we're going to take their knowledge and bring it into ours and no one even questions it. Like it's just so obvious to everyone that of course we're right, our worldview. They don't even think about it, in fact, it's just, this is the way it's going to go and it's like, man.

Think about that, you know?

In contrast, my experience working within IESS during this study has taught me that the approach to bringing knowledge together is founded upon the principle that each knowledge system has value and insight and that knowledge systems ought to remain intact following knowledge exchange. Participants in this study advocate for an approach that maintains the integrity of knowledge systems even as they engage with and learn from other knowledge systems.

Therefore, developing a deep understanding of worldviews, knowledge systems and how they come together in respectful ways was seen as critically important. At the same time, learning from mistakes of the past and from examples of when knowledge was not exchanged in ethical ways can inform current and future best practices. Participants in this study suggested that these are essential, foundational knowledges for cross-cultural collaboration.

Community contexts

A thread throughout the interviews was the need for people who work with Indigenous Nations to be aware of and sensitive to the reality within community contexts. This includes knowledge and awareness of the resource constraints (see Challenges section in Chapter 5) as well as the dynamics within and between communities. Oftentimes, this was described as “knowing who you are working with,” which speaks to the importance of being prepared and becoming informed about the specific communities one may be working with before initial meetings, but also more broadly to an awareness of the current contexts of Indigenous Nations.

One example that participants spoke to in this context was the lack of high-speed internet in remote First Nations. As Kathleen Padulo explained,

Meetings would be so much easier if I didn't have to explain to government all the time, 'okay, so, you're going to email this new policy or discussion paper to remote communities, it may or may not get there because their email is not the high bandwidth that we enjoy in southern Ontario'

Assuming that everyone has regular and routine access to the internet and basing communications approaches on this assumption can lead to a situation where information is not being shared with communities in a timely manner, which can then add to the

challenges listed below, such as the unrealistic timelines imposed on communities to review information and legislation. On the other hand, understanding these constraints can lead to different communications approaches, for example mailing information or calling people over the phone, which may be more appropriate depending on the context. Understanding the resource constraints discussed below and taking steps to work around those is an important element of understanding community contexts.

History, colonialism, settler colonialism and unsettling

The centrality of history, colonialism and settler colonialism to cross-cultural contexts cannot be overstated. Participants in this study highlighted the ways that colonialism and settler colonialism continue to impact on the quality of collaboration and relationships between Indigenous and non-Indigenous peoples. Participants in this study and literature reviewed as part of this study indicate that the history remains unknown, denied or misunderstood by many non-Indigenous people in Canada. Therefore, this knowledge becomes crucial for people who will work cross-culturally. Participants noted that people need to understand the history of the relationship between Indigenous and non-Indigenous peoples from first contact to present day, including their own implication in this history and how they may continue to perpetuate colonialism through their own practices and approaches. Scholars such as Paulette Regan (2010) and Battell Lowman and Barker (2015) reinforce the feedback from the interviews in this study and suggest that developing a deep understanding of colonial history and settler colonialism, how they operate, their impacts, and means of moving forward to redress historical injustices are key elements of curriculum for people who will work cross-culturally.

Residential schools

In particular, participants noted that many individuals are still unaware of the history of residential schools in this country. With the recent close of the Truth and Reconciliation Commission (TRC) and the subsequent action items that came out of their closing report, there is a tangible need to ensure that everyone in this country is aware of residential schools and the legacy they leave behind. Participants spoke to the need to be compassionate and patient with those they collaborate with who are survivors of residential school or whose family members attended residential school. Understanding the intergenerational impacts of the residential schools is an important element of learning about residential schools.

Know your own history

Participants also spoke to the significance for non-Indigenous people to know their own histories and role in settler colonialism. Knowing where and when your ancestors arrived as well as your knowledge system and worldview underpinnings as mentioned above are key elements of this. This involves determining your own implication in the settler state and in the oppression of Indigenous Nations. Exploring these topics through personal research, family genealogies, interviews with family members, reading old diaries and journals and other similar approaches were recommended for exploring one's history.

Laws and frameworks for Indigenous Responsibilities and Rights

In carrying out the interviews I heard numerous stories about non-Indigenous people who did not have knowledge or understanding of the legal frameworks and laws that are relevant in these contexts. From lack of awareness of treaties, the Indian Act, the Canadian constitution and other laws and legislation to misunderstanding how laws are

enacted and followed, participants in this study highlights the need to raise awareness in these key areas. In our interview conversations, participants suggested that in cross-cultural contexts where Indigenous and non-Indigenous peoples come together it is critically important for everyone to know and understand the legal frameworks at play. At the same time, the role and importance of international frameworks, such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), was also seen as crucial for people to know. Beyond simply knowing about these frameworks and standards, it was also identified that it is key for people to understand the bearing that they have in collaborative work.

Treaties

Knowing about and understanding the relevance of historical and current treaties was identified by participants as crucial in these contexts. Participants suggested that non-Indigenous partners in collaboration should be aware of the treaty that enables them to be on the territories where they live and work and they should bring this knowledge and understanding into their collaborations, rather than having to be informed by Indigenous people as a part of collaboration. Unfortunately, this is not often the case, which then creates a situation where Indigenous people must take on the responsibility of educating those who they are collaborating with, oftentimes being subjected to ignorant questions and remarks, as was described by participants in this study. Rather, scientists, government staff, those who work in environmental organizations and others should have this understanding going into collaboration.

United Nations Declaration on the Rights of Indigenous Peoples

Similarly, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) is another guiding document developed at the international level aimed at supporting people in respectful cross-cultural collaboration and maintaining Indigenous rights. UNDRIP contains a number of articles, which identify and explain Indigenous rights in various contexts. Participants in this study made numerous references to UNDRIP and noted that it was critically important for people to be aware of, understand, and bring into their cross-cultural collaborations. Participants in this study spoke to the role of a UN document as a trusted and neutral third party whose guidance was valued in cross-cultural contexts.

Free, prior and informed consent (FPIC)

Free, prior and informed consent relates to the rights of an Indigenous Nation to determine ahead of a project whether or not they wish for it to take place. FPIC moves beyond simply consulting or creating a context where Indigenous Nations can participate in decision-making to enshrining their right to determine the outcome of decision-making. FPIC is embedded in UNDRIP as well as other natural resource laws in Canada, yet many individuals remain unaware of how to engage Indigenous Nations in a way that respects the right to FPIC. One participant from the forest industry spoke to the role of FPIC and how it is being adopted by other frameworks, such as the Forest Stewardship Council certification processes,

This topic of FPIC and free, prior, informed consent, you get a lot of people analyzing it, and saying ‘let’s give First Nations people a veto’ and it’ll be somehow in the new FSC standard, this concept of reaching agreement. I guess to me, it’s another example where we had said, ‘it is our desire to reach agreement with these communities’ and so not have a great debate or as much debate about well, is it FPIC and UN declarations

and just try to bring it all the way down to the ground and say, ‘we wish to continue to develop relationships that allow us to reach agreements and then work backwards from that’

Participants clearly expressed that understanding FPIC and how to operationalize it in different contexts is an important knowledge component in cross-cultural collaboration especially in contexts of collaboration around natural resource development on Indigenous Nations’ territories.

Racism and power dynamics

Understanding how racism plays out in modern day power dynamics within cross-cultural contexts was identified as being essential in achieving respectful and ethical cross-cultural engagement. Learning from anti-oppression frameworks and understanding the role of microaggressions in perpetuating racism were two elements that participants identified as extremely important. The role of racism in these contexts is discussed in chapters five, six and seven with respect to the critical theory analysis component of this study. At this point, it is key to point out that participants in this study suggested that understanding what racism looks like and how it can be countered is important knowledge for people working cross-culturally to be aware of.

This section has summarized key knowledges that participants in this study identified as important in cross-cultural environmental work. These knowledges will be applied in chapters six and seven where IESS pedagogy is articulated and expanded. The following section focusses on skills that participants and other sources identified as being critical for individuals working in these contexts.

Essential Skills

There are numerous and diverse skills that are essential to cross-cultural collaboration in environmental contexts that emerged from the interview data. As Algonquin Elder Larry McDermott identified, these skills are critically important not only to solving environmental challenges, but also in solving broader global challenges. Therefore, cross-cultural skills need to be emphasized within educational systems across all levels and subject areas, in his own words Elder Larry explains,

In terms of the human circumstance it's not that cross-cultural skills are nice to have and it's kind of fun to do things with another culture, it's that if there's going to be peace on this earth, it's essential that we develop those skills and I would argue that those skills are far more important than other skills, where a greater premium is placed on education that has an economic impact.

Participants noted that oftentimes, hiring processes highlighted other skills, beyond cross-cultural skills as essential to certain roles in government or industry, yet that cross-cultural skills were crucial. The skills identified here are seen as crucial to working respectfully across cultures, regardless of the disciplinary background or area of expertise of the individual.

Central skills that emerged from the interviews include the skills specific to common roles in cross-cultural environmental projects (for example, facilitation), people skills and reading people, active listening, reflection, communication, and patience.

Active Listening

The need to cultivate active listening skills was addressed in almost all of the interview discussions and has been important focus of IESS programming to date.

Participants from government spoke about seeing challenges and conflict arise when staff

did not have listening skills, for example, Gordon Kayahara who works with the Ontario government explained,

I've seen too many times our [sighs] staff will go in and say 'this is what you should do,' right? And it's just not having that basic ability to listen and respect. They just kind of listen and nod and oh 'yeah yeah yeah'... but, it's to listen to appreciate, to actually think about it and then you put your thoughts together and then I think you can engage.

Beyond just listening, participants recommend that people need to listen in a way that enables them to be open to change—their plan for collaboration or the project or how they think—in response to what they have heard from their partners in collaboration as mentioned above, this is connected to cultivating open-mindedness. The role of listening was also linked with the importance of everyone having a voice within collaboration and ensuring that no one voice or perspective dominates discussion, as Elder Larry McDermott, the talking stick holder for his community explained,

But an individual can also demand that they be heard in such a way that expresses that they're more important than the rest. So, not only is it important to listen, it's also important in trying to establish equity and ensure that everybody has a voice and that needs to be done in a self-less way.

In the same vein, another Elder, Lark Ritchie, emphasized the importance of active listening skills in validating those who are communicating, so everyone in the group feels that their contributions are heard and that it is important for them to be there. Sue Chiblow also spoke to the importance of listening to be able to deeply understand what others are speaking about and to be able to analyze what has been heard to make connections between participants in the group. Another Indigenous participant suggested that the ability to listen actively conveys genuineness or authenticity, that those who are at the table are invested in making collaboration work well and to collaborate in a manner

that respects everyone as equal contributors to the shared work. Conveying genuineness by actively listening and engaging in dialogue supports relationship building among people, which is a central value that was identified in this study as well.

Communication

Many of the skills discussed in this chapter are related to communication, however there were numerous specific examples of specific needs related to communication shared by participants, which will be discussed in this section.

Following up on collaborative work in appropriate ways

Follow up was identified as a critical element of cross-cultural collaboration and communication. As Kyle Powys Whyte explained,

constant follow up on stuff, one of the biggest things that breaks things off is that people just don't consistently follow up with each other and that's not something that's particular to tribal issues, that's just something that makes or breaks projects, but oftentimes people don't understand how to do follow up with tribes. You know, if you're working with tribal natural resource staff, there's parts of the year where they're not in the office at all.

Ensuring that within collaboration, everyone has discussed and agreed upon a process and timing for following up on shared work is important. This enables everyone to be on the same page and ensures everyone's expectations for following up on shared work are respected and met. Similarly, participants spoke about needing to find and agree upon multiple formats and opportunities to develop and review materials in collaboration and that no one single approach will also work. Therefore, the need to ensure processes include a number of communication approaches is important (for

example, teleconferences, in-person meetings, in-camera sessions, small break out groups, etc.).

A number of participants spoke about the effectiveness of simply picking up the phone to call one another and discuss the projects and timelines. Many participants spoke about modern communication and the complacency that can come with electronic mail technologies. Rather than waiting for a reply to an email, participants recommended picking up the phone and having a short call to reconnect and move projects forward.

Develop awareness of the various approaches to communication

Similarly, one participant from industry discussed the importance of being aware of how communication with partners in a collaboration takes place—how the company communicates internally, how the community partner shares information within the community—and making time and space for these processes as well as being aware that often at the community level, communication happens by word of mouth. This can be to the benefit or detriment of collaboration, for example, a number of participants spoke about how often an industry partner may share misinformation about their collaboration with one community with other communities, which can then create conflict between the company and community or between communities. Knowing that there are informal networks of communication and information sharing enables everyone to be careful with how they are speaking about collaboration outside of the project as information can often very quickly get back to the community, which can erode trust and hinder group processes.

Anishinaabekwe Sue Chiblow spoke about the cultural differences in how people communicate and use body language, suggesting that people need to be aware that

Western conceptions of body language may not be the same as those from Indigenous Nations; awareness of this diversity ensures that individuals do not make mistaken assumptions about the meaning of someone's body language. Knowing the subtle differences between how cultural groups communicate to be able to facilitate productive dialogue is an important skill in these contexts. At the same time and as mentioned above, many participants spoke to the necessity to be able to read body language in order to be able to assess how collaboration is progressing.

Foster approaches to communication that are cooperative rather than competitive

Elder Larry McDermott identified that in conventional western contexts communication is highly competitive by nature, rather than collaborative, which can create obstacles to collaboration, support poor listening and stifle people and creative solutions to our challenges, he explains,

I find often communication happens with the most aggressive people and so the passive people, who may have wonderful ideas to contribute, are often smothered by the aggression of others who are obsessed with their ideas. It's called ego. I think that's critically, critically important: that we stifle ideas because of this aggressive society where knowledge itself is a commodity and that it becomes a competition. It's very unhealthy because we miss better ways of knowing, we miss better solutions to the problems that we're facing because of that aggression and I feel that aggression is something that comes right from the 1493 papal bulls, and of course that was reinforced through colonial policy that exists to this day.

This quotation illuminates some of the assumptions central to conventional western communication approaches and can incite each of us to reflect upon how we communicate in our collaborations and elsewhere. An alternative approach to this competitive style of communicating suggested by Elder Larry is to utilize a talking circle format, where everyone has an opportunity to speak without being interrupted or spoken

over. In explaining this process, Larry shared the guideline that whenever a dialogue is taking place, each person take note of how much time there is for discussion and how many people there are in the group and that each person should not occupy more of their fair share of the groups' time with their own speech and contributions. He suggests,

To me, it's respecting everyone's voice and it's emphasizing the responsibility of listening. And recognizing that what I have to say is one part of the collection of individuals. So, if there's 20 of us, my speaking is 1/20th of the importance. 19/20ths of the importance is listening to the other 19 people.

Co-creating and agreeing upon approaches to communication

Participants suggested that beginning collaboration with explicit discussions about how the group will communicate can help to ensure everyone is on the same page from the outset. Oftentimes laying out a communication framework is done through a formal Memorandum of Understanding (MOU) or Terms of Reference (TOR), which can then be used as a reference for when issues come up or someone steps outside of the agreed upon approaches. Participants suggested that creating these agreements can help to develop a group rapport and build relationships as initial meetings are focused on the 'how' of collaboration, rather than moving straight into the 'what', which sometimes can be more controversial. Within these agreements are also approaches for how conflict will be resolved within the group as well as timelines and expectations for follow-up, roles and responsibilities in the group (i.e. who will take and disseminate meeting minutes), pathways of communication, modes of decision-making (i.e. consensus or majority voting) and other essential components of group communication. Participants in this study noted that developing approaches for communicating collectively and collaboratively honours that diverse groups and people have different modes of

communication and enables each collaboration to customize processes that will work best for the people and organizations involved as well as for the specific circumstances of each project.

Developing cross-cultural conflict resolution skills and approaches

Participants identified the importance of developing conflict resolution skills. In each of the interviews the challenge of addressing conflict was discussed and for many participants they noted that they had gained their conflict resolution skills through experience, rarely through formal training. Participants indicated a need for advanced conflict resolution training at post-secondary levels as well as in professional development training. Ideally, conflict resolution is something a cross-cultural group discusses prior to conflict arising in order to put processes and approaches into place so that once conflict does arise, there is already a plan in place for addressing it, as described in the section above in co-developing MOUs to guide group work. Participants suggested that approaches to resolving conflict should be drawn from each of the cultures engaged in the collaboration and should create space for group discussion and learning toward continued progress on shared projects. Participants in this study noted that there were few if any training opportunities for conflict resolution and group facilitation that acknowledged or spoke to the particular contexts of cross-cultural collaboration, which indicates a gap that IESS pedagogy can fill as it develops and provides training at various levels.

The role of humour in dialogue to help alleviate tension and address conflict also emerged as an important communication technique within the interview discussions. This requires having astute awareness of the timing and type of humour to use in order to

help address conflict. At the same time, humour and laughing together were seen as important elements of relationship building among project partners.

Creating capacity to understand, interpret and translate different knowledges

Another communication skill that emerged through the interview process is the ability to translate information from one audience or context to another. Translating technical concepts into plain language or social issues into concrete actions that can be taken by a company are a couple of examples of what translation looks like within cross-cultural contexts. For example, one participant who works in government, suggested that being able to translate someone's concern into terms that others will understand is a necessary element of communication in cross-cultural settings and within conflict resolution more broadly. He indicated that being able to translate in this way means, "knowing the perspective of both and then being able to transfer that into something everyone can relate to."

Sue Chiblow suggested that being able to understand terms that carry currency at the moment is important for those working within Indigenous communities and organizations; often referred to as 'buzz words' Sue noted that the meaning of these terms can shift over time and depending on usage. It is essential for those working cross-culturally to be able to understand the meaning of these terms and translate them in ways that make sense at the community level or conversely to take the work being done at the community level and translate it into terms that would be meaningful to a funder or government.

Kindness

Several participants in this study identified treating one another with kindness was an important skill in cross-cultural environmental collaboration. Arguably, kindness can also be seen as a value, yet practicing kindness is at the heart of including it in this section on skills. What seems like a simple instruction, be kind, can become difficult to practice when cross-cultural collaboration is not going smoothly or cultural values are at odds with one another in collaboration. Kathleen Padulo, member of the Oneida Nation explained, “Elders are able to sit back and they’re always the kindest, no matter who you are” suggesting that kindness is an important cultivated skill, to be able to continue to treat colleagues with kindness even when the process is frustrating, there are misunderstandings, or people make ignorant remarks. Kathleen also noted that sometimes this means waiting to respond or taking time after receiving a frustrating email before responding. To me, this also speaks to the ability to self-regulate, to not respond immediately to ensure the correspondence can remain respectful and kind and is also linked to patience and not rushing the process or communication and therefore eroding the quality of collaboration.

Patience

A central skill that emerged from the interviews was that of cultivating patience. Participants spoke both in terms of having witnessed patience within those they work or actively cultivating patience as a central part of their practice in cross-cultural environmental work. Chris McDonell, who works in the forest industry, described the need for “patience but not passivity. Not being so patient that ‘whatever happens happens’ but having the right time horizons and time scales for assessing social engagement.”

Building on this understanding of patience, Elder Larry McDermott related this skill to historical contexts,

Colonization and mental health are far more significant than we dare acknowledge. There is a need to be very patient with each other and know that if we're going to have real change it's going to require truth, patience, it's going to involve conflict and we're going to have to negotiate how we resolve that conflict. This calls upon each of us to see the cross-cultural work we are doing within a broad historical context and larger project of reconciliation, which involves seeing how the contexts we are working within are related to a bigger picture of colonization and the impacts of genocidal government policies.

Cheryl Recollet described an experience of being rushed to create and sign an MOU with a company,

when they first came to my community, they wanted an MOU in 4 weeks. And I thought, 'after our first meeting? Good luck!' [laughs] this is a relationship we're trying to build here, you're not just going to expedite it in a month just so you can include my letter with your application.

As Elder Larry McDermott explained, "there's no fast tracking the process. It just will not be fast-tracked by any individual with impatience. Impatience will not produce [laughs] quicker results; it will actually produce much slower results. It will impede and impair."

According to participants in this study, the opposite of patience, impatience, can be extremely damaging to relationships and long-term collaborations yet, it is common in environmental collaborations, especially when government or industry has ambitious timelines for "getting shovels in the ground" something I have seen in my own

experiences doing this work and that a number of participants addressed in our interviews.

This illuminates another theme, which came up numerous times in the interviews where partners in collaboration often had conflicting timelines, expectations and priorities. Cultivating meaningful and trusting relationships between government, industry and First Nations takes time and requires patience. As many of the participants in this study suggest, building relationships often requires a number of face-to-face meetings.

Participants also advised that people working in collaboration need to be patient with where each person is in their learning journey, for instance, Larry McDermott explained,

I think it's important that people in the circle recognize that there're people who are at different points on their journey, in terms of growing and their capacity, etc. and so, those that understand the impact of self-centeredness, for example, need to be compassionate and patient.

Along the same vein, this need for patience with one another's learning journey is mirrored in the need to be patient with creating large-scale societal change, as is the underlying purpose many interview participants identified in our discussions. Elder Larry McDermott advised the following,

You really have to know that it's a long-term project and you can't get frustrated with the reality of where we're at in contrast with idealism about where we should be. And those people that are patient and creative about getting from the one point to the other and see it as probably multi-generational, they aren't going to have a hard time.

Larry and others in this study spoke to the critical importance of continually returning to cultural traditions to support cultivating patience, compassion and seeing the

big picture, as well as depending on spiritual practice to help strengthen themselves in the struggle for Indigenous rights, justice and social transformation and the difficulties of working cross-culturally. For some this involved ensuring that several times of the year they had a number of days to participate in ceremony, while also recognizing that the daily spiritual practices they maintained were equally as helpful in warding off the negative emotions of frustration, anger, or hopeless that can surface in cross-cultural work.

People Skills and Reading People

Numerous participants spoke about the importance of ‘people skills’ within cross-cultural environmental contexts. These skills ranged from cultivating kindness to being able to read people and read a room. In these contexts, reading a room involves becoming aware of tension within the group, noticing when people withdraw from discussion or dominate it and otherwise being aware of group dynamics.

Within the context of the interviews we discussed whether or not all of these are skills that can be taught or whether for some, such as being able to read a room, may be a gift rather than a cultivated skill. However, through the discussions with participants and reading literature, I have attempted to parse apart these subtle differences and will identify here, what I believe are skills that learners may cultivate over time on their learning journey. Most participants agreed that over time and through experience one can gain the skill of being able to read a room, or read people. To me, this suggests the importance of making explicit the need to be able to read context in this way and encourage learners to include in their personal self-reflections their thoughts on how they read a situation, context or dialogue. One participant suggested honing these skills at the

post-secondary level through structured debate with detailed debriefs to support students in having experiences that enable them to be able to better read people and situations.

Elder Lark Ritchie spoke about how he gained skills as a hunting and fishing guide that he brought with him into his cross-cultural work. Specifically, at the beginning of a trip with a new group of people, Lark would create opportunities for observing the participants and getting to know them. He would have everyone go out and sight their rifles and would watch as they interacted with one another and went about sighting the rifles, from there, he would begin to determine who were the quiet ones in the group, who were over-bearing, who enjoyed talking and telling stories and so on. This can be applied to cross-cultural projects and learning in IESS contexts— understanding the importance and necessity of learning about the people you are working with—to support positive collaboration that honours the diverse personalities and perspectives of those involved and builds group processes that create equitable space for everyone to participate regardless of over-arching group dynamics or personality types.

Another element of this is the role of relationship building in a project. Elder Lark Ritchie also suggested that at the beginning of any collaboration, participants go together on a fishing trip or another outdoor adventure and get to know one another; the necessity and role of relationship building and maintenance was a strong theme across the interviews and will be discussed further throughout this dissertation.

Another participant reflected on their experiences living in numerous different countries as he grew up and how this taught him to read social cues, which he identified as an essential skill in cross-cultural work. To be able to sense tension in a room for

example, was something that a number of participants discussed as being important in cross-cultural work.

These people skills also involve being able to relate to those you are working with, to understand how they learn or gain knowledge in order to effectively engage in the cross-cultural work. This means knowing who you are working with to be able to generate group processes that honour the diversity of learning and communicating styles that may be present in the group.

Reflection

Several participants spoke to the importance of personal reflection in doing cross-cultural work. One Anishinaabeg Elder spoke about the importance that his teacher placed on taking time once and awhile to “stop, sit down, turn around and look back where you came from” to see how far you’ve come and “perhaps you missed something that you should be doing”. Similarly, Sue Chiblow asked, “If you don’t look back to see where you’ve been and learn from your experiences, how can you use that to move forward?” Participants noted that this reflection happens on multiple levels, the individual, the group/community, and the nation and that it should inform our future approaches, behaviours and strategies.

Engaging in deep self-reflection

Elder Pat Tangie spoke about the importance of being truthful in our self-reflection, she suggested, “we have to really be truthful to ourselves and say, ‘okay, take a good, hard look at the situation and understand what we are doing or not doing’. Are we contributing positively or negatively?” This reflection will help to ensure that we are working respectfully in collaboration as well as in other areas of our lives. Lilith Wyatt

described the importance of reflecting upon ourselves and our actions truthfully, despite how this may make us uncomfortable, she noted that through her own personal reflection she came to notice difficult truths about her behaviour in cross-cultural collaborations, for instance:

I think one of the things that has felt important for me to tease apart is how easy it is for me to come from a place of feeling morally superior and to take a tone that's not constructive. I'm not the one that's directly affected by these things. I can be angry on my own time, but if I'm trying to actually support this cross-cultural collaboration for the better, then it's not helpful for me to react in a way that's further alienating other non-Indigenous folks just because I'm on some high horse. I think that's been something that's been interesting to watch myself, like oh, 'that time I corrected someone because it felt good to know that I was better or right' or something.

According to participants in this study, engaging in personal self-reflection that is non-judgemental, yet truthful is another area where cultivating balance is important. The role of self-reflection in seeing how our own actions influence our collaborations for better or worse and taking steps to correct actions as necessary is an important part of effective collaboration.

Kyle Powys Wyte also spoke about the necessity for practitioners in this area to reflect on why they wish to be involved in this type of cross-cultural environmental work with Indigenous people and what their underlying goals are for doing the work, he says,

I know some people that do want to really work with tribes, but ultimately some of their goal is financial or academic or something like that and I really ask them to interrogate what those goals are because I think you can see it in how people communicate—you can tell when somebody really believes, they want to see tribal capacity building, self-determination, sovereignty and that's really what drives them. You can tell the person that knows that they should say something like that

but that's not what they're going toward and I would tell people to think carefully about what is really motivating you and given the challenges of doing this kind of work, if your motivation is something different than a full on commitment to tribal capacity development and self-determination, then you should think about the appropriate way to do that. I'm not saying people shouldn't do that, but they maybe shouldn't go full bore into it

This quotation suggests that the reasons we are doing this work should be a central part of our self-reflection and depending on what we find as underlying goals and objectives of our work, we may need to rethink whether or not we are best suited to our current roles/projects.

Lilith Wyatt described how engaging in personal self-reflection on her intentions had deepened her ability to see her actions in a bigger picture context, "I could look back at a lot of my own academic and personal and professional history and see ways where I'd been missing the mark, where my good intentions alone had really been insufficient." She described how this realization led to notable changes in her behaviour, thinking and approaches, which led to improvements in the quality of the collaborations she was engaged in.

While the role of reflection and self-reflection in effective collaboration was a central theme across the interviews, Robyn Smith also noted the challenge that this poses in regards to the time required to engage in deep reflection. Robyn works with an Indigenous environmental education program and noted that our interview conversation provided a key time of reflection for her, and that she really appreciated having this time because, "so often we don't have the opportunity to reflect about the work." In my own experience and what I have heard from many colleagues is that often in this work there is a lack of resources (human, financial, spatial, etc.) and that this impacts heavily on our

ability to work as effectively as we would like as in this case, where the importance of reflection is acknowledged but finding the time and energy to engage in meaningful reflection is extremely difficult.

Therefore, it is imperative to develop systems and approaches for reflection that create the necessary time and space for it to happen. Participants suggested possible approaches to make space for personal and group reflection, including staff retreats, regular “check-in” meetings with project teams, or routinely scheduling time to reflect upon recent work. In my experience, this type of reflection is easily facilitated following a major event, for example the delivery of training or a conference, through a debrief meeting, yet it is critical that individuals doing this work make time for the deeper reflection discussed next.

Lilith Wyatt suggested the need to build into group reflection processes an approach known as ‘failure reporting’. This involves looking particularly at the things that haven’t gone well within a given reporting period and also removes some of the stigma from the negative emotions that can go along with making mistakes. Rather than glazing over things that went wrong or feeling shameful about having made mistakes, Lilith explains about failure reporting,

It encourages people not to blame, but talk about general failures, things that have been tried and then failed. Failure reporting attempts to make failure not personal, not permanent and not pervasive, but, just things that happened that failed that we now have the chance to learn from, but only if we look at them honestly and talk about them openly.

As mentioned above, participants identified that being reflective included not only reflecting on one’s work and practice on a regular basis, but also engaging in deep self-reflection, to know one’s own history, ethnicity, personal beliefs and values so that when

one begins to learn about another culture and belief system they are able to learn about it without appropriating or trying to become what they are learning about.

One non-Indigenous participant explained that this deep personal reflection, “starts to allow me to really work on myself and figure out from my own experiences and my own roots, where everything fits, which comes in later because by doing that then you can accept and respect this other point of view.” In this way, personal reflection and learning about one’s positionality, beliefs and values becomes foundational to being able to collaborate in respectful ways and to learn about other cultures without appropriating knowledges. In particular, this also involves, knowing your own assumptions and as Gordon Kayahara suggested, “take a look at your attitudes and how many of them are just colonial assumptions.”

Developing self-awareness

Closely linked to reflection and self-reflection is self-awareness. This is also related to people skills and being able to read a room and other people. Participants spoke about the need to be self-aware in cross-cultural contexts and to be able to identify when one may have made a misstep and taking responsibility for one’s actions. Kyle Powys Whyte reflected on his experiences in environmental collaborations with tribes and scientists in the United States and noted the importance of being self-aware and learning from one’s mistakes rather than being embarrassed and trying to compensate for an error in “problematic ways”. Instead, taking responsibility, identifying that a mistake was made and that taking steps to avoid making the same mistake again were seen as a good sign that collaboration was moving forward in a positive way.

Self-awareness in these contexts also includes reflecting on how you come across to those you are working with. As Kyle Powys Whyte explains,

When you communicate you've got to be understanding of where they're coming from and sometimes that is a matter of how you speak and how you talk, and how you comport yourself, even physically with your gestures and things like that, but you have to kind of be hyper aware of those kinds of things

Having self-awareness of how you come across to those you are working with or how those in the room are reading your verbal or physical tone is an important skill to cultivate in these contexts. Being able to pick up on social cues and to be sensitive to how your actions and approaches impact those you are working with is essential to building positive collaboration. Furthermore, ensuring that you are not as Larry McDermott suggested, making yourself more important than the others in collaboration or taking up an unequal share of the time, resources and space within the collaboration is are key elements of self-awareness to cultivate.

Similarly, one participant noted that a lack of self-awareness in many of her colleagues in government, in her view, is a key root of the challenges and difficulty in collaboration between Indigenous Nations and government. On one hand this was provided as an explanation for why things sometimes go awry in cross-cultural collaboration, but this also provides an antidote, where if individuals are aware of the impacts of their behaviour on others, they will work to correct or improve their actions to avoid offending or hurting those they work with.

This was also discussed within the context of 'microbehaviours', which can have negative impacts on collaboration. This can include how people in collaboration talk

about key elements of their shared projects. Kyle Powys Whyte provided one example of this related to funding opportunities,

I've been in a number of cases where there was a funding program that tribes wouldn't qualify for and the scientists will just jump in and start talking about how they could do the work together without really realizing that at some point down the road in the conversation they're going to have to bring up the fact that the tribe won't get any of that funding.

There are numerous examples of microaggressions that have come up through the interviews and will be discussed in greater detail in chapter six. For the purpose of the discussion here, it is important to note that microbehaviours and microaggressions exist, can have extremely damaging impacts on collaboration and that people in these contexts need to be taught to reflect upon them so they may identify, recognize and eliminate negative microaggressions their ways of being and relating. As Lynne Davis explained in cross-cultural collaborations and learning environments, "we understand that people learning, including myself, make mistakes. That we live within a colonial context, we're saturated in colonial consciousness, and that we don't even see the seams of that."

Non-Indigenous participants spoke about the criticality of reflection with regard to understanding history and their personal implication in the oppression of Indigenous Nations and developing their own understanding of what they are responsible for as individuals. Sometimes this was referred to as 'historical baggage' and learning for themselves what is theirs to carry. Other times, this is about learning how to respond when specific examples of injustices were brought forward in collaboration.

The importance of reflection and self-awareness were a strong theme in this research and this resonates with approaches to teaching and learning in IESS contexts. Many of the assignments and techniques used in lectures and seminars in IESS courses

are designed to facilitate student reflection. As Lynne Davis, an educator in Indigenous Studies shared, “I use reflection papers on a week-to-week basis. Students prepare reflection papers and that’s a window into their thinking. They’re given the opportunity to do reflective readings in analytical ways, but also to include their own experience.” Assignments that make space for personal reflection create a structure for supported reflection and building self-awareness as part of the learning process while at the same time providing an opportunity for educators to see into student thinking and to pick up on any problematic line of thinking or potential issues (for example, depression) that students may be struggling with. Having read student reflections, the educator is then in a better position to tailor discussions and feedback to further support student learning and reflection.

Within a professional environment, a number of participants spoke to the importance of having trusting, supportive relationships to help with personal reflection. Oftentimes this was a friend who worked in a similar field or someone with a depth of knowledge about this work who practitioners are able to speak candidly and honestly about their thoughts, reflections, struggles and questions that arise as they work in cross-cultural collaborations.

Chapter Conclusion

This chapter outlined the central values, attributes, knowledges and skills that environmental practitioners in this study assert are central and helpful in working cross-culturally. Chapter five continues to present data from the interview discussions by sharing the approaches participants use in their collaborative environmental work and challenges that arise in cross-cultural environmental projects. Chapter five explores what

success/effectiveness looks like in these contexts from the perspective of participants in this study.

Chapter Five: Results- Approaches, Roles, Challenges and Articulating Success

This chapter explores the ways in which practitioners activate the values, attributes, knowledges and skills described in the previous chapter within their collaborative work. This chapter responds to research question one by exploring how practitioners bring knowledge systems together, including approaches and roles, challenges encountered, and what effectiveness and success looks like in these contexts.

First, I introduce key approaches that participants in this study spoke about in the interview conversations. The approaches are diverse and emerge from multiple knowledge systems, including Haudenosaunee, Anishinaabeg, and western systems. Next, I explore the roles participants in this study identified as central to cross-cultural environmental collaboration. Then, I share challenges practitioners in this study experienced in their cross-cultural environmental initiatives. Finally, this chapter explores how participants in this study measure and assess the effectiveness of their shared environmental projects.

Table 3 provides a listing of the Approaches, Roles and Challenges emerging from interview discussions with participants in this research.

Table 3: *Summary of Approaches, Roles and Challenges in cross-cultural environmental collaboration*

Approaches	Roles	Challenges
<ul style="list-style-type: none"> • Ceremony • Countering Systemic Racism • Disrupting hierarchies • Equity on the table • Evaluation • Honouring Emotions • Learner Centerd • Levels and Scales • Medicine Wheel/Circle • Mentoring and Coaching • Moving beyond fear and uncertainty • Taking risks and thinking outside the box • Shared experiences and common ground • Thinking for the future and long-term 	<ul style="list-style-type: none"> • Elders • Youth • Facilitator • Champion/Torch-carrier • Bridge • Neutral, Third Party • Science Advisor 	<ul style="list-style-type: none"> • Colonialism including denial and hiding of colonialism and settler colonialism • Antagonistic relationships • Check box syndrome • Being uncomfortable • Conflict • Different timelines, priorities and needs • Funding • Government structures impeded respectful engagement • Resource constraints • Racism

Approaches

Throughout the interview discussions participants described a multitude of approaches that they use in cross-cultural work. I asked participants directly about the approaches they utilized to support their cross-cultural collaboration in order to garner an understanding of the processes key to their cross-cultural collaboration. I also include my own reflections on the role of certain approaches in cross-cultural work.

At times, the approaches described are over-arching, long-term approaches (for example, an overall approach to integrating IK into a public secondary school) and other times, the approaches shared are relevant to specific contexts (for example, a board

meeting). In other words, the approaches span multiple levels and time frames. The various approaches that the participants brought to our conversations are detailed below.

Ceremony

Practicing ceremony was an approach discussed in most of the interviews. Ceremony served numerous purposes within these contexts, including giving participants spiritual strength to engage in the challenges that arise in cross-cultural work, helping people build common ground and relationships, changing the tone/feeling of a meeting/collaboration, and making space for Indigenous ways of knowing and relating within cross-cultural contexts.

Participants reflected upon the benefits of bringing ceremony into cross-cultural collaboration. In some cases, this involved prayer and/or the Haudenosaunee Thanksgiving Address or smudge at the start of a meeting, or participating in a pipe ceremony together before a conference or meeting. Participants noted that experiencing ceremony together creates a space for sharing and relationship building that results in enhanced abilities to listen, dialogue, and support one another. Participants also shared that participating in ceremony can deepen understanding about the environmental challenges that groups are working to address and further projects in that manner as well.

For instance, Oneida environmental practitioner Kathleen Padulo, described how ceremony can enrich understanding of environmental issues,

I think the other point that's really important is being aware that the language, stories, and ceremonies are vital. It's so central in the work. In the policies, especially within the environment field, it's huge. Especially in meetings where government is present, and we have, a water ceremony or the language is spoken, government, many times is humbled, by the experience as in 'wow, this is a

completely different way of knowing and learning and experiencing the environment and being able to be stewards of the environment.’

Anishinaabeg Knowledge Holder Sue Chiblow described a similar benefit of including ceremony in cross-cultural work and expanded to include the benefit that ceremony can have in helping people move forward on shared priorities, rather than focusing on past issues,

I think for people when you tell those stories and a lot of times we’ll bring in smudge and we’ll do smudging and we’ll explain to them that it’s just a way to clear your mind, to clear your heart so that we can all sit together and try to reach the same goals and I find that really calms people because from experiences of working with government and the Chiefs of Ontario, a lot of times the first half of the meeting would be focused on past grievances such as trust and they need an opportunity to be heard, but I find that if you do different types of ceremonies that it’s way easier for them and they’re not so angry with government

Ceremony is important to consider not only for advising group processes and practices, but also for the seasonal shifts in availability of Indigenous participants at certain times of the year. A number of participants spoke to the reality that there are certain times of the year that they are unavailable, because they are on the land in ceremony or participating in other traditional activities. Again, Kathleen Padulo explains,

The expectations from the Elders is that you’ll listen and you’ll go to those ceremonies, you’ll go to those teachings, you’ll go out and you’ll practice your traditional ways and you’ll continue with those ways, you’ll hunt, you’ll trap, you’ll collect your medicines, you’ll collect your berries and you’ll pass that onto your children. That’s important and all those stories that go with it, on the time of year you go, how you do it, you know? It’s really really important, they’re just not, you know, made up.

The guidance here is to respect the seasonality of ceremony and practices and make space for those within group processes and for non-Indigenous people to understand and respect when project partners identify times of the year they are unavailable due to partaking in these important cultural events and practices.

It is important to note here as well, that ceremony was also discussed with regard to spiritual strength and for the essential role that ceremony and spirituality played in supporting participants in their cross-cultural work and in life in general. This idea has been a thread throughout this chapter and the next chapter, as participants identified the role of ceremony as central to group processes, as well as in engaging with spirit and the sacred, in finding balance, in cultivating patience and elsewhere in this chapter you will find reference to the criticality of ceremony in cross-cultural work.

Countering Systemic Racism

One educator explained her approach for countering systemic racism at the off-reserve school where she works near her First Nation. She found that bringing in “too much at a time” could create resistance in both educators and students at the school. She developed an approach instead, of infusing each of the classes with Indigenous Elders and Knowledge Holders as well as teachings delivered by herself. Through this approach of sharing short teachings (around 15 minutes) she is able to spend time in each classroom and therefore to reach students at each of the grade levels and in various subjects in the school. She visits each class and shares teachings, but likes to keep them short, she explains, “they enjoy the way that I’m doing it, because it’s little bits at a time and it’s not everything at once where I lose them.” The teachers told her as a result of the program that, “it’s so calm and relaxing, the students get more prepared for the day and

for the work that we have to do.” Part of the approach is that she has a Cultural/Native Resource room at the school, a space where students can go for resources, support, information, snacks/refreshments and to practice cultural traditions. Every morning and afternoon she explained that she will “walk the halls” a couple times and make sure students are receiving the support they need to be a healthy, engaged learner. Each day before school starts, she leads a smudge outside for anyone who wants to participate. She explained her approach,

They know I help them here too. They know they can come in the room to hear about colleges and universities or jobs, or they can go to the back to sleep or I make little couches, if they need a couch and if they want to smudge, I take them out to smudge

Her approach is holistic, tending to the physical, mental, emotional, and spiritual elements of each student and offers a model for implementing Indigenous Knowledge across disciplines not only in at the secondary level but that could be replicated at other levels as well (elementary and post-secondary). Central to her approach is training the teachers in the school about Indigenous history and traditions and how to teach from an inclusive perspective that respects the Indigenous students in the classroom.

Disrupting hierarchies

Within this study, many of the participants spoke at various times about disrupting hierarchies. This related to power dynamics in the contexts that they work, as well as disrupting what may be seen as ‘conventional’ hierarchies within a western context (for instance, the teacher-student relationship). Participants spoke to the many ways that they seek to disrupt hierarchies and make space for other ways of relating.

A common hierarchy that was discussed in this study was the traditional western conception of the teacher-student relationship with the teacher as a central authority and source of knowledge/information and the student as an empty vessel there to learn from the teacher. Disrupting the traditional student-teacher relationship honours the life experiences and knowledge that everyone brings with them to course content and reinforces that everyone has something of value to contribute to group dialogue and each other's understanding.

Robyn Smith identified that this was an approach used in TRACKS' outdoor programming with children, she explains,

It's amazing, the learning that happens just between those kids and what they're teaching us all the time. But that's one of the coolest things about the program, is the fact that the kids are generating so much of that teaching, instructors are learning from each other, from the kids, from the Elders. It's very much a non-linear learning exchange.

Similarly, Lynne Davis, an educator in Indigenous Studies spoke about disrupting conventional hierarchies in education at the post-secondary level, she explains,

From a Freirean point of view, everyone is a learner and everyone is a teacher, everyone has life experience that they can contribute. This approach connects theory and practice. I'm interested in the ways in which people can take a particular issue, engage with the theory, but then figure out what they can do with this knowledge and to apply it. I use reflection papers on a week-to-week basis. Students prepare reflection papers and a window into their thinking. They're given the opportunity to do reflective readings in analytical ways and also to include their own experience.

In this way, learners are asked to deeply engage with the material and one another, to support each other's learning, and to take what they have learned and apply it to their own lives to create change in the world.

Other examples of disrupting hierarchies come from Indigenous practitioners working at the community level. Sue Chiblow explains, “Right now I’m working with one community, that’s under the land code, and we’ve been working in developing their own laws and their own policies and then we just inform government of what we’re doing in a respectful way because First Nations people have a responsibility to the lands, to manage for the future generations.” In this context, disrupting hierarchies enables the restoration of Indigenous Nations to their rightful and original role as stewards or caretakers of their territories without interference by settler governments.

Disrupting hierarchies through group processes was another means that participants spoke about. This could be achieved through simple changes to group processes, such as, ensuring everyone has a role/voice in developing meeting agendas or that Indigenous participants have complete autonomy over planning meetings (where they will take place and what their focus will be) instead of the conventional approach of a government or industry representative taking on the logistical details of meeting coordination.

As mentioned in the previous chapter, Elder Larry McDermott advised that hierarchies are a human conception and that cross-cultural processes and approaches can be designed to reflect processes in the natural world, rather than human ideas. In this way, disrupting social hierarchies can move us toward processes that are reflected in nature, which may help us move closer to our goals of restoring the natural world and addressing environmental challenges, an underlying goal of many of the practitioners in this study. At the same time, creating group processes that disrupt hierarchies can create

more space for IK systems in cross-cultural collaboration and further equalize the relationship between Indigenous and western knowledge.

Lilith Wyatt describes her interest in disrupting conventional power hierarchies in her role at a conservation organization,

In this job, when I took it, I took it with a very explicit personal goal that it would be an approach to conservation that would work cross-culturally to dismantle the colonial and settler orientations that the conservation movement in Canada has been founded on and continues to operate on these days – often blindly and often thinking that because they don't intend to it doesn't matter

In this way, the group processes, including who is invited to sit at the table at various levels and on different files, and other foundational organizational principles and practices are everyday opportunities to disrupt unjust social constructions, challenge settler colonialism, and create positive change.

From this brief exploration of the ways in which participants in this study seek to disrupt hierarchies it can be seen that practitioners report that they are finding diverse and creative ways of shifting power dynamics and imbalances in their cross-cultural work and within their organizations.

Equity on the table

A number of participants spoke about the necessity of all the partners in a collaboration in “putting equity on the table” at the outset of projects as well as throughout their lifespan. The hope is that each partner puts an equal amount of equity on the table and that everyone involved benefits equally from the shared work. Participants also spoke about how oftentimes, partners can put equity on the table without taxing their own resources unduly. In this study, it was common for examples of equity

to be resources that partners had easily or freely available, but that were critical for the success of a project or extremely helpful for a project partner.

Participants in government saw this as sharing information, reports, or advice on how government systems operate, while academics often saw equity as compiling relevant/helpful information for partners, providing a presentation on a topic unrelated to collaborative work, but that was helpful to project partners or developing resources to support partners in other goals/projects. Therefore, equity on the table could be volunteer time, knowledge/information sharing, physical space for meetings/gatherings, financial support or food for feasts, among other things. Kyle Powys Whyte shares an example of equity on the table,

With a climate change project for example, there was one of the scientists, his previous work was on mercury levels, not necessarily related to climate change, so that particular tribe, we knew that they'd done stuff on mercury, so he came in and brought some data and information and did a presentation just on mercury, which was you know, tremendous help to the people that were working on mercury.

It was expressed that putting equity on the table supports relationships and trust among collaborators, while also providing tangible resources for projects and partners to help forward shared work.

Evaluation

Processes and approaches for evaluating shared work are explored later in this chapter in the section *What is effectiveness or success?* This section will not duplicate what has been written there, but will explore the importance of evaluation in cross-cultural collaboration. A number of participants spoke to the crucial role of evaluation in their work. At the same time, government representatives identified that evaluation was a

gap in their work. One participant from the Ontario Ministry of Natural Resources and Forestry, explained that evaluation is a key element of scientific studies, but that it has not been adopted within a policy framework. He explained,

I think that's done in the scientific world all the time, right? You build in an evaluation and monitoring as part of your project, as part of a scientific study, but, policy hasn't typically done that. We haven't done that with policy. So we want to build that into policies.

While recognizing the importance and need to evaluate work, this participant also explained that they were not clear on how to do this effectively in cross-cultural contexts.

This presents an opportunity to learn from Indigenous Knowledge systems, as Kyle Powys Whyte explained,

Indigenous people have great evaluation because people forget that it's not just about collaborating, right? But it's also about evaluating the collaboration and the ultimate project and Indigenous people have their own way of evaluating and so I think that's a key area

Therefore, participants suggested that government and other project partners work with Indigenous partners to identify means of effective evaluation in cross-cultural contexts. Evaluation can support project goals by determining whether or not approaches and processes are working well and identifying areas of improvement.

In thinking about evaluating cross-cultural work, a number of participants identified that there were issues with western approaches to project evaluation. Oftentimes, the challenge stemmed from a funder, who had specific approaches for evaluating cross-cultural work embedded within their funding structure, but that participants suggested were detrimental to cross-cultural collaboration. For instance, participants spoke about the focus of many funders on "results-based" evaluation was

seen as problematic, especially at the outset of a new collaboration. Participants suggested that this approach to evaluation did not make space for the learning that oftentimes characterizes new cross-cultural projects. Participants felt that identifying end goals too early stifled the overall process or by only evaluating a project based on the end result did not capture the other benefits or elements that may have worked well within a project.

Elder Larry McDermott and I spoke at length about this issue and Larry noted that within an evaluation framework it is important to make space for modifying and adapting goals as a project progresses and new knowledge/information becomes available. He explained that failure to do so can be extremely problematic in environmental contexts,

To me, the way we know that we're successful is the ability to respond and the commitment to responsibility. In fact, we're still rationalizing a lot of foolishness under economic objectives. It's really an excuse to not look at the other pillars of sustainability. And cross-cultural skills are important to all of those pillars of sustainability.

Therefore, evaluating cross-cultural work needs to be done in a way that is adaptive and holistic and creates space to change the direction or goals of a project over time as needed.

As mentioned briefly in the previous chapter, Lilith Wyatt suggested another approach to evaluation and spoke about the role of failure reporting in evaluating cross-cultural work. She explains,

in conversations about cross-cultural work, one of the most common things that comes up is, 'oh, how do you get around people being so defensive' not wanting to listen to anything... so, with the concept of failure reporting, it's open season, what are the things that we have not done well? What are the things that we try to do and that have not worked? So you encourage people not to blame, but talk

about general failures, things that were tried and then failed and then it makes it not personal, not permanent and not pervasive. But, just things that happened that failed that we now have the chance to learn from, but only if we look at them and talk about.

In our conversation, Lilith and I noted that often things that have not gone well are left out of evaluation, either out of fear or sometimes lack of awareness that something has not gone well from everyone's perspective. We explored how in western culture, failure is somewhat of a taboo, but Lilith suggested that creating an open dialogue about things that have not gone well in a collaboration can be a meaningful way to ensure everyone's voice is heard and that group processes and approaches continue to improve the overall collaboration and move the group toward their goals.

Participants in this study suggested that finding means of evaluating cross-cultural work should be a central element of collaboration. They recommended that the approaches used should be respectful of and rooted in the cultural traditions of everyone involved in the project and should not shy away from exploring things that are not going well alongside those that are. Being adaptive and open to changing project goals and objectives were also seen as central considerations in evaluating cross-cultural work.

Honouring Emotions

The role of emotions was explored in many of the interview conversations. Participants spoke about the frustration, anger and defensiveness that can be garnered through cross-cultural dialogue. Participants indicated that these emotions can become obstacles to collaboration when they are not appropriately addressed, either through group processes or individually outside of group collaboration. Anishinaabeg Knowledge Holder Sue Chiblow noted that, "Once they get defensive then they get angry

and the walls come up and you've lost them," which can stall or even halt collaboration completely. Sue explains potential approaches for moving through difficult emotions,

I've had the opportunity to work with Elders and the way they approach it is just so different. They tell stories and everybody gets stories and it creates a setting, I think for people, when you tell those stories and a lot of times we'll bring in smudge

In this way, story and ceremony are seen as ways of honouring and moving through negative emotions that may come up a group engages in difficult dialogue.

Another participant spoke about the frustration that often builds in working within colonial government systems, which can impede collaboration. Acknowledging these challenges and finding ways to transform these systems within group processes is helpful in addressing this frustration. Examples of this are provided in the section above on disrupting hierarchies.

Shame is another strong emotion that was discussed in the interviews. Sue Chiblow noted that the Truth and Reconciliation Commission (TRC) has created a context where many settler people are locked into feelings of shame. She explains, "people feel shamed for what their ancestors or what the government has done. So, now how do you pull them out of that shame and get them to understand that, okay, let's learn a lesson from it."

Negative emotions have also been observed by the educators who participated in this study, for example, Lynne Davis describes her observations in teaching in Indigenous Studies at the post-secondary level,

One of the things I discovered, particularly with students who were coming through the international development studies stream, is that they have an excellent grasp of the macro forces that affect the world and, as a result of that

they were very disempowered. I would read from week to week, these very sad reflections on the world and the future and I truly felt that that these people, these young people were robbed of their future. And so, for me personally, I have a commitment to engaging in classroom practice in a way that empowers people to know that they're actors.

Alongside feeling disempowered are often emotions like grief, denial and guilt, which are common when learning about both environmental issues and the historical and current colonization in Canada. Participants in this study suggested focussing on what lessons can be learned from these difficult experiences and acting on those lessons, rather than getting mired in the feelings of guilt that often arise. Guilt can be a healthy human reaction, yet it must be worked through in order to be able to move beyond it.

Learner Centered

Participants in this study suggested that educational curricula should put learner needs, gifts and interests at the center of programming. The underlying philosophy sees learners as unique, with their own gifts and role to fulfill. Anishinaabeg Knowledge Holder Sue Chiblow explains,

I don't think everybody's born to be a facilitator. I think it's a gift. I think that goes back to people understanding or acknowledging or learning what their gifts are and utilizing those gifts. Because there are some people that are comfortable in front of a crowd of other people and there are some people that just aren't and to try and force them to be like that doesn't work. I think that's what a lot of the university setting does, is it forces them but instead, it should be letting them learn to acknowledge that that's something that they just don't want to do and that they're fine with that and they can contribute in a different way.

According to Robyn Smith, centering learner interests, gifts, and strengths is a foundational element at TRACKS, where instructors' ability to be flexible and adaptable

to students' needs is paramount to their programming. Staff are trained to be responsive and are comprised of a diverse team of educators, volunteers and others, who are able to support learners in following their curiosity and interest.

Levels and scales

Throughout the interview discussions it became apparent that practitioners think of their work on multiple levels and at multiple scales. Sometimes, this referred to their work within their own organizations, and other times, at local, provincial, national and international levels. As one representative from the forest industry representative Chris McDonnell explained,

I mean, there's many data points in a community, you know, we're still working on this aspect but as I mentioned earlier about local relations, regional, political relations, that for sure, you can feel that 'oh the Chief and Council seem satisfied with my company,' but if you have 20 trappers that are really angry at you on the ground in a certain location because of forestry, well, there's a problem too. Chris explained that his organization has shifted their shared understanding of roles and responsibilities, given their work with Indigenous Nations. Whereas some staff may have been seen as 'local operations' and others as higher level and those two may have never mixed in the past, now they understand the importance of relationship building at multiple levels of leadership within their organization, as well as with respect to the First Nations they work with.

Kyle Powys Whyte highlighted the relevance of thinking about levels and scales as well. He spoke about this in relation to creating change and improving cross-cultural collaboration and explained that working to create systemic change at a higher political level (through laws and legislation, for example) often takes more time than other local level issues (for instance, addressing someone's bad behavior in cross-cultural

collaboration). Kyle advised that being aware of the level at which you are engaging can help manage expectations around timelines for change as well as the extent to which an issue can be addressed at a given level/scale. In this way, developing an awareness of the various levels/scales at which a problem can be attended to and understanding the timelines and sphere of influence at each level can help practitioners make strategic decisions about how to address a specific challenge or issue. Another participant built on this thinking and suggested that there are “hierarchies of scale”, where practitioners often begin their work because of one specific issue and then as they get involved, the issues become bigger, more complex and higher level.

Lynne Davis talked about working at various levels in an effort to decolonize. She explains, “I think there’s a mental decolonization you have to go through and I would say, my sense of decolonization is that it happens at different levels and returning the land is one.” Thinking about decolonization in this way acknowledges that there are various levels at which decolonization takes place, beginning with the individual, moving to the local/community level and upward toward the national level, with different approaches, timelines and expectations for what decolonization looks like and means at the different levels.

Therefore, based on these shared perspectives it could be argued that thinking about the issues and challenges we wish to address in cross-cultural work at various levels and scales can support strategic decision making, the development of realistic expectations and timelines, and the ability to see how addressing one issue at various levels can lead to greater positive change than simply engaging one of the levels.

Medicine Circle/Wheel

Three participants in this study spoke directly to using the medicine circle/wheel as an approach for thinking about issues as well as working together. Elder Larry McDermot explains,

in any cross-cultural dialogue I'm going to resort to the 4 instruments of knowing and the medicine wheel and I think because of patriarchal society we've put a premium on the mind and then we've put some value in the physical, but we definitely, we've even deliberately put up a firewall between the emotional or the empathic traditions.

In this way, the medicine wheel is used to illuminate what is missing from engagement with the challenges we are working on. The medicine wheel can also be used to assess the challenges we are seeking to address and to guide us in thinking holistically about the work we are doing. Gordon Kayahara explained what this means to him,

The MNR defines community success as economically successful and to me no, it's going back to the medicine wheel. You have to have all four to say you're successful. You can't just say you're physically successful and forget everything else. You see the spiritual success and the emotional coming up but it's not quite there yet, but I think when the communities start having that balance and the balance starts reflecting throughout everyone else. I think that's when you'll start to see success.

Understanding effectiveness or success in this way means looking beyond only the physical, intellectual or economic realms to the emotional and spiritual realms as well, in thinking about cross-cultural work. This can also relate to thinking about different levels and scales, where the four elements of the medicine wheel are applied at various levels to discern how to move forward on an issue.

Mentoring and coaching

The role of a mentor, coach or advisor was a central theme throughout the interviews. Participants spoke about this approach in a number of ways, including having an advisory committee to support overall guiding of work, about coaching staff at various levels to be able to work effectively cross-culturally, and about having a trusted confidante to share openly with as people encountered challenges in working cross-culturally. Many of the practitioners I spoke to talked about someone they had in their life, often outside of the work they were directly involved in, who they could spend time with, learn from, and speak frankly with about the challenges they were encountering.

For some participants, this role was filled by someone much older, an Elder or someone seen as an expert and who had worked extensively in cross-cultural contexts. For others, this person was simply a dear friend who in the same field and therefore had necessary background understanding to support them in navigating the issues that arose as they worked cross-culturally. These support people were seen as sounding boards, sources of advice, and support for emotional/spiritual issues as they arose. Oftentimes, especially in the context of an advisory board, but in other contexts as well, these mentors and coaches were Elders with Traditional Knowledge and values to share with the practitioner to support them in their work. Other times, the coach was someone within their organization, who had experience working cross-culturally and was a resource person for others in the organization to draw upon. Several participants noted that these people often helped them “interpret” the significance of an event or discussion and make sense of the challenges they are encountering, while also supporting them in finding a way forward. Participants also identified that these people were a source of learning,

reflection, and helpful information to assist them through the process of cross-cultural collaboration.

For non-Indigenous people, there was an identified need to speak to another non-Indigenous person who understood the dynamics and challenges of cross-cultural work, but was not necessarily directly involved the project. Lilith Wyatt explains from her perspective,

So, I guess having peers who I... am comfortable reaching out to for advice from a shared ally perspective. You know, not asking a settler who's still, you know, like I'm trying to convince on this thing or an Indigenous person, but like having other people I could reach out to and say 'help me think about how to...' that has been super helpful in I think my own ability to work through it and get better and learn myself.

The approach of depending upon a mentor/coach/advisor to support cross-cultural work was identified by both Indigenous and non-Indigenous participants. Participants in this study echoed the idea that there were a variety of these 'resource' people in their lives, depending on the need at a given time, and that their advice, guidance and listening was instrumental in helping them move forward on projects in respectful ways.

Moving beyond fear and uncertainty

In speaking with the participants, I heard their stories of overcoming their fears and moving into an authentic relationship with their partners. Many non-Indigenous participants described being afraid of offending, of not knowing, of their own complicity, and of what they were uncovering as they learned in these cross-cultural contexts. I have heard my students speak about this in class, for example, when learning about microaggressions; they suggest that knowing they are out there, invisible and often unintentional, they feared speaking at all to say the wrong thing. However, it is in this

shifting from fear to openness in the learning journey that creates transformative benefits in their lives, work, and in the world around them. Taking up some of the suggestions in this chapter, such as speaking actively and freely about failure, and overcoming the fear and anxiety of uncertainty is helpful here.

Forestry representative Chris McDonnell explains this from his perspective,

The efforts that we're taking are quite efficient. We're not trying to point fingers in other directions, and yeah you can do that with governments and First Nations themselves, but it just seems that if you can overcome your fears or uncertainty... what I simply see is the communities have some very practical problems and as a business we have the opportunity to support the solving of some of those problems.

Another government representative shared her reflections on her early experiences in cross-cultural work and being unprepared, which lead to fear as a basis for interpersonal relationships.

Algonquin Elder Larry McDermott shared wisdom on the roots of fear in global challenges and suggests that environmental practitioners see their interconnectivity as a means to counter fear,

Just like cleaning up a drop of water can have an effect on an ocean, that's what we've got to do. That when many people take modest measures to improve the world, it's only in that way that the world will ever change and that's got to do with the interconnectedness.

Taking risks and Being Creative

Closely linked with moving beyond fear, participants in this study indicated the need to take risks and be creative in collaborative work. Participants from government and industry comprised the participants who spoke to this element. One participant from the forest industry describes his experience,

A lot of my contemporary forestry colleagues, not only in the company but in government were... I don't know if intimidated is the right word, maybe that's not quite it, but in terms of if it was environmental organizations or First Nations, there was a lack of comfort in dealing with conflict or perceptions of conflict and you had your manuals in forestry, you know, these thick thick binders of things you must do and they had lots of complexity with that and the whole regulatory process and it didn't really inspire one to go outside those boxes. So, the processes described often kind of created some walls associated with being able to get outside that a little bit and just engage with folks, understand their more core values and what they're really interested in accomplishing

Oftentimes, this requires creativity and deep knowledge of how government systems work, government worker Gordon Kayahara explains,

It takes a little bit of work and imagination and it takes a manager willing to risk it, because some managers they'll just say, 'oh no, we can't do that' and other managers will say, 'you're right, that's important, so I'll risk it'

Participants in this study suggest that taking risks, being creative, and generating innovative ideas and approaches are important elements of addressing environmental challenges cross-culturally.

Shared experiences and common ground

Participants spoke to the link between relationship building and creating shared experiences to build common ground. Numerous participants made the suggestion to sit down over food and have free flowing conversation as a starting point for working together. Participants noted that these opportunities for informal discussion often illuminate the primary interests, goals, needs, and so on of project partners. Through these experiences, people get to know one another and develop a foundation for further relationship building.

Thinking for the future and long term

The approach of taking a long-term perspective was reflected in the interview discussions. Often, the focus on thinking long-term and into the future was exhibited by participants' interest in exploring goals that reach decades into the future. For participants in this study, this meant looking beyond quarterly reports, election cycles or simply from year to year, to include future generations into decision-making. From an industry perspective, participants felt that when they were able to connect with the long-term goals and visions of the communities they worked with it enriched their projects and supported better relationships and therefore they sought opportunities to do so. All of the representatives from industry in this study spoke to the role their organizations could play in supporting Indigenous Nations in their big-picture visions. Here, one representative from industry shares his perspective,

sometimes we will hear what they want to do and assume that they're thinking about it the same way we are. For example, they say 'we want to be stewards of the land' and a reaction can be 'ohhh okay' but we'll assume that they mean by next week, next year, you should fire all your foresters and we're going to replace them, and sometimes they'll talk that way, but really, what they're aiming to do is find an acceptance of the principle and whether or not there's a partner who will join them on that path. And for me, in that conversation there is a way to collaborate. In other words, because things are transitioning all the time, who can say what forestry will be like in 10 years from now? Let alone 20 years and so, for me, to say, 'we'll work with you to become stewards of the land' if you can accept that we have good people in that regard, and you want to be more involved, how do we work together on that goal as opposed to either avoiding the conversation, which would be a more common type of approach, or saying 'no, you can't do it,' or 'no you shouldn't because we're already doing it, so too bad,' or 'that's the government's job.'

It does seem to me that there is, again, if we could all think long term for the moment, there's a rather pragmatic, straightforward type of engagement that can happen when you think about where you want to be, you want to learn about forestry, we're going to meet the current requirements, we're going to keep working with you, but it allows for the conversation around, well, 'what do we do today with Elders, with youth, to give them all these requirements, the legal requirements, forestry certification and your interests' and it allows the tiny steps that fit with their capacity and our ability to help them toward that direction. So, you know, finding philosophical alignment or an agreement on a shared vision changes the relationship entirely. Cause they get a sense that you want to go to the same place.

This is an example of someone having the ability to fit the present into a longer time frame and to see how actions of today can over time lead to the transformative change that project partners wish to see. This particular quote also speaks to the role of developing a shared vision in creating and working toward long-term goals in cross-cultural work.

Many Indigenous participants in this study spoke to the long-term goal of building a nation-to-nation relationship with Canada. Kathleen Padulo explains,

There is a whole segment in terms of education and awareness that needs to happen provincially and federally and we've had a long 8 years of being under a conservative government that has refused to meet with us, refused to communicate, refused to be transparent and it wanted and was forcing transparency on communities but was reluctant to be transparent themselves. So, we need to go back and really start to build a relationship based on trust and respect so that we can move forward to build that nation-to-nation relationship. Haudenosaunee Elder and Knowledge Holder Henry Lickers explains long-term vision and thinking from his perspective,

The Haudenosaunee started out as a war like group of people that were just the worst that you could imagine but the Peacemaker showed us a better way. He showed us what the future could look like and when we saw that we suddenly realized that this was going to be a long, long effort. Because the concept was that we wouldn't only change our little nations but we would change the world.

Elsewhere in our interview Henry explained about project timelines,

In this society, everything wants to be done by Friday. In our society if takes 20 years it will take 20 years. Putting sign posts in is hard work so it might take a little while. And if it takes 20 years, well what's wrong with that? We can have good dinners all the way along and nice meetings and continue to work on the process because that is how communities work as well.

Anishinaabeg Elder Pat Tangie spoke to the importance of taking a long-term view, not only with regard to human life, but for all of Creation. She explains,

We have a responsibility to teach our kids in school about the teachings that the old people have given us and what those original instructions are, because we want them to be successful. If we don't teach our kids about those really really important cultural pieces, we'll never become strong as a people because we won't know who we are... if each of us does what we're here to do, we'll be able to work better together. We'll understand our roles and not make judgements on other people's roles. Everybody has their thing that they have to do and I have the faith to do what I have to do, say what I have to say, at those times that they need to be said and trust that everybody else is doing the same because we're just like a little piece of sand on a large beach.

In the old days, when our Chiefs or our women held their councils, it didn't matter how long it took. You sat and you talked about it until you could figure out the best avenue to move forward. Nowadays, we're always looking at our watch, we don't give the issue the time we need to really enter into a dialogue that's in the best interest of everybody in creation. Not just us human beings or the companies or the government, but what about our four-legged relatives, our

water, our trees and our flying ones? What about all of our other relatives in Creation? We need to give everybody the time they need to help us understand what's in the best interests for the continuance of life. In the end, that's all we're here to do, is to make sure life continues. The question we have to ask ourselves is what kind of life do we want to continue? One that's really harmful for our future generations or one where our future generations can thrive and survive in a good way?

Seeing outside of the short-term frameworks imposed by government, project funders, and other systemic level structures to an extended view of future is recommended by participants in this study to enhance relationships and collaboration as well as address environmental challenges.

This section has summarized the diverse approaches that practitioners in this study described from their perspectives and contexts. These approaches can be applied to other practitioners working cross-culturally or guide approaches to teaching and learning in IESS pedagogy. The next section in this chapter will identify particular roles fulfilled by participants in this study and their colleagues as they work cross-culturally.

Roles

Roles Identified in this Study

- Elders
- Youth
- Facilitator
- Champion/Torch-carrier
- Bridge
- Neutral, Third Party
- Science Advisor

Box 1: Summary of roles in cross-cultural collaboration identified in this study

Throughout the interview conversations participants made reference to the roles they and their colleagues fulfill as they engage in cross-cultural environmental work. These roles are summarized in box 1. From the interview discussions, it became apparent that fulfilling specific roles in these contexts activates the

approaches detailed above and enables the embodiment of the values, attributes, knowledges and skills discussed in chapter four. This section describes the roles that were discussed in the interviews as well as advice that has been offered with regard to these roles.

Elders

In this study, the role of Elders has been a central theme. Elders are seen as critical to cross-cultural environmental work for their ability to share teachings and embody the values that have been discussed in this dissertation. Participants noted that Elders are called upon to open meetings, share teachings, lead prayer and ceremony, to advise and for guidance, to create accountability and to oversee projects to ensure they are moving forward in a good way. One participant from government explains, “with Elders... sometimes they just want to listen and reflect and make sure that everything’s going as it should.”

Kathleen Padulo explains how an Elder Advisory Committee supports her cross-cultural work,

Sometimes I have to take a deep breath and walk away and not respond to an email for a couple days. I have to go think about it. Having a Chiefs Committee made up of representation from all the PTO’s and Independent First Nations in Ontario guides some of the environment work, where I can communicate with the Chiefs Committee and say, I’m really having some frustrating moments and I need some guidance or I need you to just sit on the call and listen and then you can provide me feedback’ or ‘I really need you to come to this meeting’ and I think that it’s the Chiefs and Elders that have the patience to listen, watch, acknowledge and they’re always the kindest, no matter who you are. Even if you are government, right? They’re even more kind almost [laughs] to the bureaucrats because they have that knowledge and a lot of times the Chiefs and Elders will

have their language and share teachings; stories and ceremonies. And I think all of that knowledge is invaluable for these positions. In this way, Elders provide a critical sounding board for practitioners as they work through challenges in their cross-cultural work, while also providing an example to look up to in terms of embodying values and practicing traditional ways of being.

Other participants spoke about the role that Elders play in identifying projects, prioritizing issues and catalyzing community to address pressing issues in community. Anishinaabekwe Sue Chiblow explains,

They offered a prevention stream of funding and so we accessed some funds from there and that was a really good project because a couple of the Elders in the community had specifically pointed out plants that they wanted protected that aren't listed on the species-at-risk list. And it's really increased an awareness in the community and the staff did an amazing job of putting together some pamphlets and information that were distributed to the community so now everybody's like, 'hey, there's that plant. No no, we can't...' you know and so people within the community are even more aware of it and that's been a really nice project as opposed to, you know, all of us trying to save something that's disappearing.

The quotes in this section show that the role of Elders is multi-faceted and fulfills an array of needs within cross-cultural projects. It is important to note that there are protocols and processes for including Elders in cross-cultural work and that these vary from nation to nation.

Youth

Inclusion of youth in cross-cultural work and environmental projects has been a theme in these interviews. Participants in this study shared the importance of ensuring youth can participate, have their voice heard, and have opportunities to learn with Elders.

Additionally, participants saw value in providing opportunities for youth to liaise with government and build networks and relationships with people in the field to help prepare youth for their future roles in community. According to the participants in this study, the contributions of youth are valued for the unique perspective they provide and as with Elders, their ideas and concerns are often catalyzing in addressing issues.

One Anishinaabeg educator in this study spoke about the relationship between youth, Knowledge Holders and Elders, and noted that it was crucial for youth to have opportunities to see their community experts at work and to learn from them whenever possible. Providing opportunities for youth to see their role models in action was seen as key element of cross-cultural work.

Kathleen Padulo described how youth are learning their traditions and then about Western ways to be able to generate positive change for their communities,

There's a young population of First Nations Peoples who are educated, aware, confident, and learning about their treaties, languages, laws, and communicating 'this is what we want to know first and secondly we'll learn about what's happening with the province and Canada but we need to be strong in our own nations and then we can move forward.'

Participants also noted that youth involvement can create continuity on long-term projects and issues by enabling them to participate now and in the future.

Facilitator

The role of a facilitator was something that was discussed in almost every interview and was continually returned to as an essential skill as well as role that people who work cross-culturally need in order to work effectively in these contexts. Most participants noted that their facilitation skills were built through experience over time in working cross-culturally, but that they wished they had the opportunity to participate in

advanced facilitation training. As with conflict resolution training discussed in chapter four, advanced facilitation training that deals particularly with cross-cultural collaborative contexts remains elusive.

Knowledge Holder and environmental practitioner Sue Chiblow offered guidance on the role of the facilitator to help move through difficult dialogue,

You develop that voice so that you can be part of the solutions. I think that's another thing for facilitators and/or leaders is to have that long-term vision to be able to focus on solutions. We have this issue here and we can sit and point the finger at people, we can point the finger at industry, we can point the finger at government, but you know what? At the end of the day we're all using plastic. So, we're all contributing to the oil sands and people acknowledging that they're contributors to the problem and then moving on to focus on a solution.

That's one thing that facilitators in those types of situations need to do, is to understand that there's a grievance period where people say 'well, you did this and you did this and you didn't do that,' and then the facilitator can draw people into, 'okay, we've come to an understanding that we have different perceptions on exactly what happened and how it happened, but now let's come, pull our minds together and figure what the actual solution may be.'

Participants suggested that facilitators need to develop their own voice and approaches for navigating dialogue in cross-cultural settings and to create a space where participants can speak freely and listen to one another.

Many participants spoke about the need for facilitators to be clear about the types of dialogue that will be utilized in different contexts and encouraged facilitators to clarify this at the beginning of a meeting or event. Participants provided several examples of types of dialogue common in these contexts, including question and answer (where no question is considered taboo or inappropriate), talking/listening circles, negotiation, and

information sharing. Participants recommended that depending on the nature of the meeting and the type of dialogue, it is often the role of the facilitator to meet/discuss with the parties ahead of the meeting to clarify the type of dialogue and goals/objectives for the meeting and to set the parameters for dialogue at the outset of a gathering. This enables everyone to be on the same page ahead of the meeting, to support the facilitator in preparing and ensure that the approach being used is in sync with the goals for the meeting. Participants also suggested additional preparatory work such as setting an agenda with feedback from everyone involved so that prior to attending the gathering, everyone has already had an opportunity to help shape the focus and approach of the meeting.

Participants suggested that in general, the facilitator should not be a representative of the group; rather, the facilitator should be a neutral third party who is able to guide the group in equitable and appropriate ways for everyone at the table. This is especially important in collaborations between government, industry and Indigenous Nations. Kyle Powys Whyte noted that the facilitator should have a relationship with the participants, he explains,

If you're going facilitate something, you can't just be a well-intentioned facilitator. People have to really know who you are, you've had to have been out there, people have to know where you come from, what your background is, what your values are.

This quotation speaks to the need for relationships and trust with the facilitator as well as between partners in a collaborative project. Numerous participants noted that it is essential for a facilitator to be trusted and respected by everyone in the group and not be seen as biased toward meeting outcomes or individuals in the group. This works both

ways, participants need to know and trust their facilitator, while the facilitator needs to know and understand the personalities at the table, their approaches to communication and learning and create a context where everyone can contribute in their own way. Additionally, participants suggested the need for the facilitator to be well versed in the subject matter that group projects are based upon, in order to best facilitate dialogue, which speaks to the importance of training facilitators who work specifically within these contexts. As one participant who works in the Ontario Ministry of Natural Resources and Forestry explained, “It’s being able to put yourself in the perspective of the person that’s got the concern and then also, if I was facilitating, or running a meeting, it’s being able to provide real life examples.”

A number of participants addressed the need for time at the beginning of cross-cultural meetings, especially between government and Indigenous Nations, to air past grievances in order to be able to engage in productive dialogue. This recommendation comes from an acknowledgement that often before dialogue can occur there are certain things that need to be said, in order for everyone to be able to focus on the priorities at hand and be on the same page. This is part of ensuring that, as participants in this study encouraged, dialogue is honest and open, and also acknowledges that none of these projects or dialogues exist in a vacuum, but rather are linked to and related with the dialogues that have come before regardless of whether or not the people at the table change over time.

Champion/Torch-carrier

A number of participants spoke about the role they played within their organization as a champion or torch-carrier for relationship building between partners in

collaboration. For some participants, this was a goal and value they brought with them to a new job/role in an organization or one that they picked up as their organization began to develop more relationships with the First Nations in and around where they work. The significance of this role is that often, without this person, the cross-cultural work would not have happened at all. In some cases, for participants in this study, the necessity to collaborate came from a high-level directive (i.e. the CEO of company suggesting that working with First Nations is a top priority) and in other cases, this was something that the champion brought with them—a need to respect and support Indigenous rights in their work as in the quote from Lilith Wyatt above. Participants in this study noted that often this championing involved engaging other people within their organization and sharing knowledge/information to “get others on board” with the priority of working with local Indigenous nations. Participants shared that this involved engaging with and shifting the culture within their organization and often dispelling myths with those they worked with.

What is powerful about this role, is that for many of the people I spoke with, without their commitment and focus to bringing Indigenous rights and issues to the center of their organization, it never would have become a priority for their organization as a whole. This role requires creativity for finding ways to link Indigenous rights to organizational priorities as well as commitment to slowly, overtime, change the institutional culture of an organization. This is a role that anyone, anywhere can fulfill by looking strategically at their organization and finding opportunities to bring Indigenous rights and reconciliation to the fore.

Bridge

The role of a bridge was mentioned in several of the interviews. Participants understood this role in a variety of ways, but primarily as a means of connecting two disparate perspectives, worldviews or ways of understanding a given issue. The person acting as a bridge is aware that they are able to understand both/all of the perspectives at hand and they are able to verbalize topics/ideas/concerns in a way that makes sense to those coming from another perspective. Gordon Kayahara explained, “I think the First Nations members feel that I understand them enough, so I’ve been playing more of a bridging between the science and the kind of the traditional First Nation view.” At times this role can foster two-way communication between two sides, or it can be one way, as Gordon describes,

For me, I think it’s more a one-way bridge, it’s trying to get the non-First Nations that I deal with, especially within the little bit of influence I have at the local level, it is getting some people to start understanding that there is a different way of looking at things and [laughs]that we’ve been dealing with the western worldview here for over 500 years and you look at the way the situation and the world is and it’s really not as superior as a lot of people might think. Gordon sees a key element of his role as a bridge as working with his colleagues to begin to see and critique their own worldview as well as to be aware of other worldviews so they may be in a better position to collaborate effectively and respectfully.

Anishinaabeg Elder Pat Tangie spoke about her role as a bridge throughout her life and noted that as she embodied traditional teachings, like the 7 Grandfather Teachings, that her role as a bridge became stronger and that each experience she had as a bridge enabled her to further build her relational skills and ability to translate from one perspective to another.

Neutral, third party

The role of a neutral, third party came up a number of times in the interview discussions and related to several key areas, including evaluating the effectiveness of cross-cultural work, ensuring that local/national/international standards are being met, and providing information. A neutral, third party could be an individual who is responsible for facilitating dialogue or it could be an international organization such as the United Nations. Participants in this study made reference to the Forest Stewardship Council and their certification process, to the United Nations and their declaration on the Rights of Indigenous People (UNDRIP), and to national projects like the Truth and Reconciliation Commission.

Science Advisor

A couple participants spoke about the role of a science advisor in these contexts. In some ways, this role is seen to be similar to the role of a neutral, third party, but relates specifically to sharing information on specific scientific topics. Participants in this study saw themselves in this role in a variety of contexts, including working in government and industry.

Oftentimes, participants framed the role as providing “trusted” information for community members on development projects in their territory or supporting community leadership/members in understanding complex scientific information and how it relates to the project at hand. The degree to which a science advisor is trusted depends on who they work for, their relationships with community, and how they conduct themselves when working with communities.

This section has begun to articulate specific roles that are engaged to support cross-cultural environmental collaboration. The roles of Elders, Youth, Champions,

Facilitators, Bridge, Science Advisors, and Neutral Third Parties were identified in the interview discussions that took place in this study. The next section will outline the central challenges to working cross-culturally that participants in this study shared in our interview conversations.

Challenges

Through the interview discussions a host of challenges in doing this work emerged. It is instructive to review the most commonly discussed challenges here and identify solutions that were provided in our discussions to support others in working in cross-cultural environmental contexts.

Challenges Identified in this Study

- Colonialism including denial and hiding of colonialism and settler colonialism
- Racism
- Antagonistic relationships
- Check box syndrome
- Being uncomfortable
- Conflict
- Different timelines, priorities and needs
- Funding
- Government structures impeded respectful engagement
- Resource constraints

Box 2: Overview of challenges in cross-cultural collaboration identified in this study

Colonialism

Colonialism is a challenge identified in this study, which touches upon every aspect of cross-cultural environmental collaboration. The impacts of on-going settler colonialism, current and historical colonial government policies and approaches, and the lack of understanding of colonialism in Canada were all identified as obstacles to respectful cross-cultural collaboration. I have heard many stories in this study, which speak to the on-going negative impacts of colonialism and settler colonialism. This section will highlight some of the central concerns with respect to colonialism that were discussed with participants in this study.

A common issue in these contexts is the lack of knowledge and awareness about colonialism in Canada among non-Indigenous people. One participant from government described his experiences in delivering training with government staff about Indigenous awareness,

It's often the staff that have been around for 20 or 30 years that are more challenging than new staff and we see this in the training that we deliver. One of the exercises we do in our training is a time line and we put up dates on a wall, like right across. And it starts at 1050AD and goes right to 2000. And then there are all the facts. So, it's you know, 1050 approximately is the Great Law of Peace and then 2000 is Nunavut was created. Its right across, and it's got everything. All those things I mentioned before like The Royal Proclamation, the Indian Act, The Doctrine of Discovery. The Ipperwash Inquiry. And all that stuff, right? And the older people don't often know any of it -- any of it. We do it as a test and we give them all cards. And then the exercise is that you have to go and put it up on the timeline where you think it goes. And then we take it up later, throughout the day after we've covered a lot of the material and the people get to see where they were off in the dates. And the older people don't often know it at all.

Sue Chiblow echoed this sentiment in our interview and linked the lack of knowledge about Indigenous history to the colonial education system,

Some of the MNR staff that are really close to retirement just don't want to learn, which is fine, because the younger staff coming in, they're more willing to learn and that's who we end up dealing with a lot. So it's been pretty good and I would think that has been the only challenge and unfortunately in those challenges we've just had to raise awareness that this is our treaty right and your courts have told you over and over again to behave and get along with us... the thing is how do you force it on somebody that doesn't want to learn? It's that old thing, right? You can bring a horse to the water but you can't make him drink it. That's a real challenge for a lot of those people that just don't want to learn and unfortunately

it goes back to our educational institutes. They weren't taught the real history of Canada.

In contrast, Gordon Kayahara, who works with the provincial government, felt that from his perspective it was not only older people who need training in this area, as has been the sentiment from some of the other participants in this study, but young career professionals as well. He notes, "We've got a lot of young staff now and I'm not sure they understand it. I mean, they came through regular environmental degrees, but, without that understanding, they can become just as defensive the generation above."

Oneida environmental practitioner Kathleen Padulo often works with provincial level government and noted that this lack of awareness of colonialism on the part of non-Indigenous practitioners contributes to frustration for community members,

It's rough, sometimes community members will be outspoken and they don't like what they're hearing because a lot of time it's built on frustration and it is years and years of frustration and the government person who is standing up there, whether it's one, two, or three of them presenting, they don't have the knowledge base, they've been living in Canada for how many years and they don't understand where the frustration is coming from and I think there's a huge disconnect there. A huge disconnect and the frustration wouldn't be there if it was you know, processed properly the first time, communicated properly the first time and the transparency was there. So, what is your goal with your discussion paper? First of all, coming from the provincial level, what is your goal? What do you want to see? Be, honest and be open about why you're coming to the communities about this piece of paper, about this particular goal and what the outcome or objective is, because a lot of times your outcome and objective has already been affirmed and you have not opened up your mind to the thought process that there's different ways of knowing and thinking and so communities are continually getting the same information over and over and over and over and

they're like, 'enough is enough' and so you may be that one person, standing at the front of the room that gets the brunt of 10 years of frustration. Indigenous researcher Kyle Powys Whyte exemplified in our interview, "in the landscape we're working with right now it's very hard to achieve outcomes with tribes or even to set up good processes with tribes because the colonial challenges are so difficult."

Illuminating the colonial challenges becomes an important element of this study to enable practitioners to see the challenges that stem from colonial systems and begin to change those elements within their own contexts as they are able.

Elder Larry McDermot spoke to the challenges of on-going colonialism, especially the lack of awareness many people have about colonial history and on-going settler colonialism,

Well the most difficult, of course, is dealing with people who are unconscious of their privileged status in a stratified society. So, it's interesting but in environmental groups for example, I often find the work to be far more challenging than it would be in circumstances where you would think cultural awareness would be much less. So, obviously, if you challenge the circumstances where people are being favoured and where there are hierarchies, etc. just by your very existence, those are the most difficult. But it's also critically important that people become more conscious of their relationships and inequities and that if there is a social justice agenda that or even objectives that hopefully we all share. The only way we're going there is by becoming more aware of our strengths and our weaknesses

Other participants from within environmental organizations also spoke to the lack of awareness of colonialism and the need for professional development training with personnel within their organizations. In some cases, this lack of awareness resulted in the "single Indigenous person" involved with the organization having to shoulder the burden of building awareness and moving the cross-cultural agenda forward often amid conflict

and resistance from other staff. Oftentimes, it was the lack of knowing, or ‘mis-knowing’, as Seneca Elder Henry Lickers referred to it, which was one of the biggest barriers because the ignorance translated to disrespectful assumptions about land rights and who ‘should’ be engaged on given files, topics and projects.

This also connects with the importance of the role of the ‘champion’ or ‘torch carrier,’ which was discussed in the section on roles in this chapter. Oftentimes, without one or two dedicated individuals who continued to engage the rest of the staff and hold everyone accountable to the goals and intentions for cross-cultural collaboration the mandate to engage cross-culturally falls by the wayside as described by participants in this study. At the same time, the role of the champion can easily become a burden and reinforce unequal relationships as is illustrated in this story shared by Lilith Wyatt,

the single Indigenous voice on the board, anecdotally, has spoken to how he has made several efforts to try and for example, integrate cross cultural elements into our strategic plan and that has, until I arrived on the scene and the board started spending more time on this, had really been completely unsuccessful and the burden had been totally on his shoulders.

Participants noted that efforts to respect Indigenous rights, for example by operationalizing the United Nations Declaration on the Rights of Indigenous People (UNDRIP), and build positive cross-cultural collaboration should not fall upon one person’s shoulders.

Another element of the colonial legacy within cross-cultural contexts that was addressed in the interviews was the belief that western science is a superior knowledge system. A belief that participants noted, is often invisible to those who hold it. Gordon Kayahara, scientist and government worker, spoke about how this belief is built into

western culture, which ultimately is about who has the power to define reality, he explained his thinking in our interview,

Literally, it's like talking to a fundamentalist Christian who believes God's it and if you don't believe you're going to hell. You're not going to convince them otherwise. I think when you're talking to people who believe that western science is a superior knowledge system because 'look what we can do,' it's a belief system and it's built right into the culture. If you look at how science progressed, with the scientific revolution, prior to that with the Church, the church had the power to define reality and how the world works. If you had the power that's the way it was and so, when the science came along and started changing that definition, the church started fighting back and well, the science at that point won and that's what we need now, it is another way of looking at reality and I think the science community is fighting, just like the church did; they got this power. Therefore, understanding about the colonial history and taking steps to eliminate the problematic approaches that stem from colonialism is identified in this study as an essential element to working cross-culturally.

In our interview Kayahara also spoke about the government's continued focus on economic development as another form of colonialism. He shared his thoughts, which also stem from Indigenous scholarship in this area,

When they talk about economic development, because that's what even the ministry, everyone thinks 'okay, what do we have to do to help First Nations: economic development, we gotta get them'... It's part of the solution but, what Taiaiake Alfred... he always talked about economic development as being assimilation's end game. So, you couldn't assimilate them through residential schools and reserves didn't work, so, in the end, 'oh let's do economic development, we'll do it that way'

This is a very important insight, that while government thinks they are ‘helping’ First Nations through economic development, Indigenous peoples often see this as another attempt to assimilate their Nations into the Canadian capitalist system.

Many of the Indigenous participants in this study spoke to the damage colonialism has done to Indigenous identities and ways of being. Participants spoke to the ways in which residential schools undermined Traditional Knowledge, language, and other cultural elements. Elder Henry Lickers shared,

And the other problem with this is because of residential school, and I don’t like the term colonization, but because of residential schools and the conditioning of native people, people are beginning to think that the way that the western society is doing it is right. So, you have a whole group of people who really want to be white and so they leave behind the traditional thinking and we have just as hard a time with them. Because they have the appearance of being Mohawk but they don’t have the deep philosophy that goes with it and the teachings that go with it. So, we have to re-educate our own people and show them the path back to a healthy place

Elder Lark Ritchie also spoke to the impacts of colonialism on Indigenous identities and noted that people need to be sensitive to this reality when working cross-culturally,

Their identity has been totally destroyed. Not for all, but I mean there’s that background at the sub-conscious level that, ‘I don’t have a basis that other people have,’ you know? So, to be sensitive to that and I don’t know if that has actually been communicated properly. Because, we all have identity, but a lot of people don’t in First Nations because it was totally ripped out.

Participants in this study suggest that it is crucial to acknowledge and understand the impact of residential schools and colonialism, both historically and how they continue to impact on Indigenous peoples. Participants in this study suggested that being sensitive to colonial realities is an essential component to respectful engagement.

Denial and hiding colonialism and settler colonialism

In this study, almost all the participants spoke to the hiding and denial of colonialism in Canada. One Anishinaabeg educator spoke about her experience with professional development with the non-Indigenous teachers at her school,

The teachers were shocked. They couldn't believe it. They couldn't believe what they were hearing and they took notes and notes galore and well I did a lot of research on residential schools way back, so I already knew about all this and I used to tell my Chief when everything starts coming out, everybody's going to be floored, I said, 'because this wasn't a residential school it was a concentration camp.'

Given the insights shared from participants in this study, it is essential to increase non-Indigenous peoples' awareness of the history and on-going mistreatment of Indigenous peoples. Without a solid understanding of colonialism and settler colonialism, it is extremely difficult to respectfully engage.

In our conversations, participants grappled with lack of awareness among Canadians. We discussed whether and how much of the lack of awareness was purposeful and how much was 'clean ignorance' in that people really just did not know the facts. This is an important discussion, because it speaks to the underlying power dynamics with respect to who controls and perpetuates master narratives as well as the need to acknowledge that both can be true, a malicious attempt to hide the truth and an ignorance based on the efforts of those in power to keep people in the dark. Elder Larry McDermott shared his thoughts on this theme and how it relates to original treaty relationships,

In the Algonquin belt, explicitly from the get-go it has 3 figures holding hands together, which is a different image and really important about sharing culture and

how our ancestors agreed to share culture. I resist the idea that we agreed to tolerate one another's culture or even that they were separate paths and we would not interfere because I don't think that's what was agreed to at all. So, in achieving that, we have to understand culturally, at least I'll say, the Canadian context, the kind of cultural history that shaped and created Canada and too often it's seen only as French and English, which to me is a huge mistake and it's a lie. A lie in the sense it can be an ignorant lie, ignorant in the clean sense of the word, just lack of knowledge

According to participants in his study, such misinformation continues to be common, which can lead to serious misunderstandings about the role of Indigenous Nations in the creation of Canada and also lack of knowledge about why engaging with Indigenous Nations is a critical element of environmental projects. One response to this theme of denial and hiding is to remain vigilant, to speak up when lies are being perpetuated, and to provide targeted training to ensure that people are not perpetuating lies without knowing it.

Racism

The topic of racism was pervasive in the interviews. Participants spoke about shifts over time in how racism manifests and has impacted them throughout their lives, careers and in their cross-cultural collaborations. Participants spoke about racism "back in those days" and the racism experienced today, which many participants described as more "subtle" and "tougher to grasp". At the same time, racism in many instances is still overt, with non-Indigenous peoples' misconceptions contributing to the maintenance of damaging stereotypes and systems of racial dominance. Participants who work within politics and the provincial government, the public education system, in universities and in communities described their direct experiences in dealing with racism on a daily basis.

Elder Larry McDermott described the pervasiveness of racism in Canadian society and how cultivating cross-cultural skills is essential to addressing systems of inequality,

There are so many symptoms of racism that are harming everybody and people are confused by it and there's too much fear. Some of this is because of what I call cultural ghettos, including the privileged, and we've got to get out of those ghettos, we've got to see that we're all in this together and we've got to open up those minds to understand our spiritual connectedness and our inter-connectedness. If we look at the news these days we can see that fostering cross-cultural skills is very very important.

The following are some examples of stories shared by participants about their personal experiences with racism. First, Elder Larry McDermott, who spent a large part of his career working in politics and as a leader at the community and municipal level, he offered the following critique on leadership and political world,

In the political world, you need to promote yourself, you need to be self-confident and even if you're egotistical, that can be seen as a strength and you can promote the dominant culture, you can even promote racism, subtle racism. I feel like that has happened in this country recently and that can attract the constituency you think will get you elected and obviously once you get elected, to flick that switch off and then foster the skills needed to work cross-culturally it's not going to happen very easily.

Larry's experience in politics was characterized by a "high degree of racism" and from sometimes surprising perpetrators, he explains, "I was really running into a high degree of racism by people who supported social justice and all kinds of committees and would never see themselves that way, but it was pretty palpable." There were many stories shared of comments made to participants in various contexts that reflected this concept of subtle racism.

Another participant shared a story about her experience as the Cultural Coordinator at the public school near her First Nation and noted that she frequently had to confront and address the mis-knowings of the teachers with whom she works. Unfortunately, oftentimes, it is after the teacher has made problematic remarks and she, as the cultural coordinator has to intervene after the fact. Stories from this participant will be shared in the next chapter in the section on stories of microaggressions from participants in this study.

Gordon Kayahara, a Canadian of Asian descent, described how having experienced racism himself growing up in 20th century Toronto, made working cross-culturally easier, he explains,

I grew up in Toronto and it wasn't the Toronto of today, it was by no means multicultural, so as a kid growing up you experience racism and so when I used to meet First Nations there was always that bit of a common thread and I remember when I was in forestry and I started in the summer working in Temagami and I'd run into First Nations there... even in the office and stuff there was a common thread, it's kind of like you both have experienced racism and you know what it's about and that makes it easier to step over

Elder Pat Tangie explains her experiences with racism throughout her lifetime,

As I was growing up I was always really connected with my Ojibway heritage. It was really difficult in that time because there was a lot of racism. It is more subtle now but, racism continues

Coping with racism

Participants described their methods for coping with racism, which for everyone included a reliance on their cultural teachings and traditions. Often, at the center of their practice was an Elder or mentor that the person could look to for spiritual guidance and support in navigating the difficult encounters, including racism, that they experienced

while working cross-culturally. As mentioned above, the role of ceremony, and a cycle of ceremonies (daily, monthly, seasonally, yearly) was a central support for Indigenous people in this study.

Larry McDermott spoke about the importance of cultural and spiritual traditions in these contexts,

I also relied on my cultural traditions. I used to tell staff, I won't be around for 4 days, 'oh, can we call your cell if we need to?' 'Nope!' because I was going to the sweat lodge and I wasn't bringing my cell into the sweat lodge. I would do 4 days of fasting and sweat in and sweat out. I did that for years. Without it I don't know how I would have made it because, all the stuff that seems so important... 4 days of prayer and sleeping on the ground and of fasting and having a heightened awareness that's not exclusively intellectual and dropping the trivial was very important to my ability to cope with the cross-cultural demands of operating politically.

Elder Larry also shared a memory of a female Indigenous colleague he had worked with over the years, which elucidates a double impact of racism and sexism within the dominant culture. Larry's colleague had been working at a high level as the president of a national organization and she shared some of her experiences with him and the stories are still with him today, "she was horrified at, she really was pretty traumatized by having been president and the experiences she had and how she was bullied. I remember her story really well. That one hit me because I think it's doubly hard for women."

This important theme of racism will be further explored in the next chapter with particular emphasis on examining the growth of subtle racism in Canada.

Antagonistic Relationships

A major challenge identified in this study with respect to cross-cultural engagement was the tendency toward antagonistic relationships. To me, this is a reflection of the discussion in the previous sections and a legacy of colonial approaches to relating and the pervasiveness of racism in these contexts. Antagonistic relationships were identified within collaborations, but also manifested itself in other ways as well. Participants spoke about this within the context of people feeling threatened by one another as well as people believing their knowledge system of western science was superior to other knowledge systems, such as Indigenous Knowledge systems. Another element to these antagonistic relations was the evocation of an ‘us versus them’ mentality and the creation of false dichotomies, which manifested in mistrust in cross-cultural collaboration.

Anishinaabeg Elder Pat Tangie shared about her experience working within government at one point in her career,

When I first started working at MNR it was really difficult. People from the First Nations, some of them, not all, some would say things like, ‘oh, you’re an apple Indian now’ or ‘you’re a traitor.’ Some people from MNR, would literally say, ‘oh, you’re here infiltrating.’ So, I felt like I was stuck between a rock and a hard place. But that was the position that I had been in most of my life anyways. While I worked at MNR, I came to understand that people didn’t necessarily want to hear what I had to say. They had no choice but to hear what I was saying because the courts were telling the government, ‘you have to consult with First Nations.’ But, they would try and interpret it in a different way completely. The government’s interpretation of what the courts were saying was completely different from mine. Often, when I’d be on a conference call with MNR legal services, as soon as they’d hear my name, I would hear stuff like, ‘oh yeah, you’re the one that...’, right? ‘oh yeah, you’re the one with the Aboriginal biases

This story shows how divisive the line between Indigenous and non-Indigenous people can be and how one woman, who went to work in government to make things better for her people was persecuted by both her community and people within government for her efforts. This story is also significant because it highlights the militaristic tone common within the English language, which I think sets up a framework where simple dichotomies, such as us and them, form the basis for interaction and create a tendency toward antagonistic relationships as identified by participants in this study.

Gordon Kayahara noted that government often acted as the antagonist in cross-cultural engagement and that by approving activities that are known to be a concern of First Nations, an antagonistic relationship is fostered. He shared the following reflection on the role of western science beliefs and how they influenced relationships in cross-cultural contexts in our interview,

It's a little bit variable, but the government reacts to anything that they see as a threat to their way of thinking, right? So, the cedar issue, in government's thinking is that it's a resource, you use it. And I mean, you get this with environmentalists. I mean the environmentalists right now are trying to set aside white pine, because Ontario has the last intact white pine, like full large areas of intact white pine in the world. That's it! Once we log it, because the Americans have logged it all and Southern Ontario's logged it all, so you get around that North Bay and Temagami area and that's it. And environmentalists are saying 'well just leave it and let nature's own fires occur, just leave it big enough that you can just let nature run through and whatever happens happens.' But that's a resource there and you're not using it and I mean it stems from contact where there was a belief that if you don't use a resource, something's wrong. When settlers came in, it was like 'oh jeeze, the First Nations, they're not using it, so they'll just be wasting it, so that's wrong,' and that thinking is there, that you've got to use the resource if it's there.

And, so with the cedar issue, it was ‘well, the cedar’s there’ and then the western worldview does not allow the spiritual to come in so, you can’t talk about that. It’s just the materialistic, you look at the pros and cons and we’ll see. And so, with the cedar issue, that was a tough one because it brought in the spiritual and the government and industry can’t deal with spiritual. There’s just nothing, the structures, everything, they can’t deal with that. So, I think the herbicide alternatives program is a little more cooperative, but, I mean, we’ll see how it goes.

It’s again, it’s a bigger issue than herbicides and we always talk about that, it’s a bigger issue because really, you’re talking about fundamental change in thinking about how you view the resource and then that’s completely, completely different and I’d like to see that change happen, but that’s a belief system change and that would be tough... It would take longer.

I just finished reading *Braiding Sweetgrass* by Robin Wall Kimmerer. It’s an excellent book and she talks about, if you view nature as being a gift, not as something to exploit, it’s a gift and it’s given to you as a gift, you would treat it entirely differently. So, it’s not that you don’t use it. And I think that’s where environmental groups, when they look for First Nation support, they’re just thinking, ‘well, because you guys are against logging too, so are we,’ but, no, it’s not that you don’t use it. It’s that when you do use it, you give it a lot of respect because it’s a gift.

This quotation from Gordon is suggesting that there is a need for belief system change within western culture and particularly with those who work in government in order to achieve effective cross-cultural collaboration and address environmental challenges.

Checkbox Syndrome

Participants in this study made reference to the ways in which government policy and processes can lead to an avoidance of meaningful engagement. Oftentimes this was referred to as ‘check-box syndrome’ where instead of building relationships and learning about community interests, the focus is on achieving the government regulation to the letter. At the same time, participants acknowledged that government policy often falls short or favours other interests over those of Indigenous Nations. This challenge was also seen as reflective of another assumption embedded in the western worldview: linearity. This check-box syndrome approach can illuminate the underlying motivations of potential project partners. Cheryl Recollet explains,

One of the companies we work with, I feel like, we were just like a check box. I mean they only did this because they had to... its if the relationship is genuine. Do you really want to be here or are you only here because you have to be and what does that say for the relationship, right?

In keeping with the values identified in this study, respecting those you are seeking to work with enough to meaningfully engage with them on their interests and concerns is essential to working cross-culturally.

Being Uncomfortable

Frequently, in cross-cultural collaboration and more specifically as non-Indigenous people begin to learn about Indigenous history and race-related issues it is common that people become uncomfortable with what they are hearing and learning about. I have seen this many times with students in IESS and in cross-cultural collaboration and noticed that it can be an obstacle to meaningful engagement and learning. Feelings of discomfort are common in cross-cultural collaboration, which was

revealed in the interviews in this study as well. Lilith Wyatt explains how this played out in the conservation organization where she worked at the time of our interview,

I guess the real challenge there was that it was [laughs] well I don't know if challenge is the right word, but the thing that the board would have named as a challenge was that it was really uncomfortable for them and they got called out. And they felt uncomfortable and they felt blind-sided and they, their feedback to me, through the two people that were at my performance evaluation was that on topics that I knew were going to be controversial, I should first consult with the HR committee as to whether it was appropriate to bring it up at the board. To sort of finesse things, before it goes to the board level. So, their reaction was, 'this is super uncomfortable, anything uncomfortable is bad, how can we make it not uncomfortable?' The answer and how we will know if you have fixed this thing you did wrong, is if in the future everything is comfortable. So, I tried to respond to them, with like, I have been really uncomfortable myself in a lot of these conversations and I think that's a good thing...

According to participants in this study, coming to terms with being uncomfortable is an important skill in cross-cultural work

Researcher Kyle Powys Whyte depicted specific elements that trigger discomfort for non-Indigenous people as they work with and learn about Indigenous Nations throughout the United States and Canada,

I think that one of the key sources of discomfort is when people really have to be pushed on this idea that from a tribal perspective, the US and Canada are not legitimate. For which you have to put yourself in the tribal shoes, which is that, you have this society that was enduring for a long time before the US and Canada and it didn't go away, and so, that provides tribes with a completely different outlook. And it doesn't matter whether you're a tribe that lives pretty close to how your ancestors did or you're one that's adapted and lives in a completely different way. It doesn't matter, right? Still your baseline perspective is that

you're the fundamental sovereign in the area and that the US and Canada are newcomers and settlers and so on.

Then also this idea that a lot of non-native people struggle with, but once they learn it, I think they are able to collaborate really well, is that they are settlers in the sense that the exploitation of tribes in North America was not economic exploitation solely, right? It wasn't sort of the accident of greed and a desire to take wealth through the United States. What the settlers did was far more than that, right? They actually wanted to create a homeland here for themselves...

When somebody really isn't unsettled, they think the tribes are people with fairly simple protocols, like, you give me tobacco and I'll give you my testimony and ideas and stuff like that and it's some simple thing and they don't understand the importance of tobacco, say, for tribes or the importance of some other kind of gift. When you start with the core relationships between Indigenous people and settler societies, tobacco is not just something that somebody likes for a weird reason, it's actually a reason I cannot understand, but it's something that's part of an overall different way of thinking about governance and nation-building and another way of thinking about how to live in this land, a completely different protocol for engagement that's just as legitimate as the settler protocols that they have and use.

I wouldn't say that I aim at or think that much about the idea of comfort or discomfort, per se, even though that's a lot of what I deal with, but it's really the idea that you have to start with that tribal perspective, that kind of original perspective and to try to overtime get people to really understand that. And that that's kind of the gateway for them to then be able to understand all sorts of issues, cultural diversity or differences in knowledge systems and knowledge exchange across knowledge systems.

This quotation speaks truths that many non-Indigenous people have never had to confront. I have heard people describe learning about settler colonialism as ‘having the bottom drop out from beneath you,’ as it calls into question fundamental elements of settler identity and nationhood. Working through difficult truths requires sustained effort and support. This will be discussed more in chapter six.

Participants identified additional elements within cross-cultural engagement that caused discomfort in themselves and their colleagues. Practitioners discussed feeling unequipped to deal with conflict and therefore uncomfortable when conflict arises. Participants also made reference to the ‘grievance period’ discussed elsewhere in this dissertation and how they spent time reflecting upon their responsibilities in light of what they had heard brought up by Chiefs and other community leadership and members, but that this was often an uncomfortable process. According to participants, part of being able to parse apart personal responsibility from societal or cultural responsibility was the need to be reflective on their own role and implication in the on-going oppression of Indigenous Nations. For participants in this study, this involved exploring privilege, ‘unsettling,’ becoming more aware of laws and treaties, and building relationships with Indigenous peoples and Nations.

These experiences of discomfort were often linked to cultivating empathy and trying to see things from another perspective in order to move through discomfort. Participants suggested developing self-awareness around what discomfort feels like, when it arises and finding the balance between sitting with that discomfort but not getting mired in it. Participants also suggested that it is helpful to acknowledge at the outset of a

meeting what type of dialogue will be occurring and that it may be uncomfortable, to prepare people to enter discussion.

Gordon Kayahara noted that government employees and scientists were uncomfortable when spiritual dimensions were included in discussions and cross-cultural work, including participating in ceremonies. He explains, “it’s tough, at the cedar meeting we had one person walk out, one of the ministry people, he is highly Christian and he just felt it was going to a place that he couldn’t stay and he walked out.” Gordon also described a general discomfort in making space for spirituality from a western science perspective and how government structures impede the inclusion of spirituality within government policy and structures.

Many of the attributes in this chapter such as open-mindedness and humour are applicable in the context of these difficult and uncomfortable moments and if cultivated, can open learners and practitioners to new experiences, which will enrich their understanding and relationships in cross-cultural contexts.

Conflict

Throughout the interview discussions participants shared that conflict was a common element of cross-cultural contexts. That being said, participants did not always perceive conflict as negative or harmful, but rather that it often created something new and better than what was being done before. In this way, conflict was seen as an essential part of the process of building consensus and understanding. Throughout this chapter, I have described a number of challenges, any one of which could be defined as a conflict in these contexts. However, it is helpful to have a specific section here to discuss participants’ perceptions and experiences with respect to conflict.

As identified throughout this section, conflict was related to varying perspectives, ideas, priorities, beliefs, or approaches used within a collaborative group. Conflict in these contexts is often related to historical legacies of relationships between Indigenous Nations, settler governments and industry. Many approaches were identified for moving through conflict, which will be explored below.

Kathleen Padulo described the sources of much of the conflict in her cross-cultural work and an approach for addressing it,

I have to speak with the, whether it's the ADM or the directors and we have to diffuse it by saying 'you know what, you have to understand we tried communicating to you at the front end, this could be the way to move forward, but there was an insistence of timelines on the governments' end, that you needed to move forward this way.' And we also, prefaced it by saying, you may have some communities that will stand up and say 'you're not going to move any further because we don't understand what you're communicating, we're frustrated, we don't have the resources, the capacity and you haven't even included us in the discussion paper. We're like we don't even exist, we're not even on the map'

This quotation exemplifies some common themes when exploring conflict in these contexts, as has been mentioned elsewhere in this dissertation, it is routine for government to approach First Nations with their priorities, timelines, and goals already set, regardless of community needs and interests. At the same time, there is an assumption from government that communities will adopt whatever the governments' priorities and objectives are. Oftentimes, government will draft legislation, host public outreach forums, and then attempt to engage First Nations on the file. This is not in keeping with respectful engagement between nations as it is laid out in international approaches, such as UNDRIP, which the Canadian government has committed to

implementing. Beyond non-compliance with UNDRIP, it is clearly a disrespectful approach, which does not align with community goals to operate on a nation-to-nation basis.

Kyle Powys Whyte shared that in the contexts in which he works, conflict often revolves around protection of Traditional Knowledge, he explains,

You have pretty strong conflicts of interest with respect to knowledge and some pretty severe power differentials, I mean, oftentimes, tribes will really want to make use of a collaboration with a group of scientists, but then are kind of put in the dilemma that if they do work with them, then there won't be adequate protections on their knowledge... the scientists won't understand that and so those are very sensitive situations because each group believes that the others are sort of trying to mess with each other.

Underlying this conflict in terms of protecting knowledge, are beliefs about how knowledge should be shared, protected, and used, which differ across cultures. Working through discussions with respect to beliefs about the importance of knowledge, protection of Indigenous Knowledge, and finding processes that everyone is comfortable with is a key element in moving through this conflict.

Other conflicts that participants discussed revolved around management goals for projects, values clashing, funding challenges, behavioural issues, misunderstandings about roles and responsibilities, among other potential issues discussed throughout this section. Participants noted that conflict can often be addressed through respectful dialogue, but that it was also important to reflect upon how a group moves through conflict to determine whether or not the partnership seemed feasible and there was enough common ground to warrant continued collaboration. When conflict arose that was seen as peripheral to group work, it was often suggested that these topics are “put in

the parking lot” to be addressed later, at another time with the appropriate people for dealing with that particular issue. Oftentimes, participants described situations where conflicts were resolved over a number of sessions in which the group spoke about the issues repeatedly to understand one another’s perspectives and to identify a means of moving forward together, or not. Participants also noted that difficult dialogue and conflict is often more common at the political level, rather than the community level. One participant who worked with a provincial level Indigenous political organization and later moved on to work at the community level noted that the level of conflict reduced significantly working at the grassroots level.

Participants noted that collaborative work frequently begins with conflict, or is born out of conflict, which also speaks to the crucial role that conflict plays in bringing people together and finding ways of working together. One participant from the Ontario government describes how this can work,

You want to have that debate happen. You want to see the different perspectives feed into a project. So, you have to go through that conflict to see all those ideas, and come up with that consensus. You’re not going to see—I don’t think you’re going to see a successful project without seeing it also be a flop.

Participants suggested that conflict can be a helpful and key element of group experiences, but that groups need an advanced facilitator who can move them through conflict toward consensus. Therefore, ensuring that advanced level facilitation and conflict resolution skills are imparted to learners and practitioners in these contexts is essential. The remainder of this section will review some of the common areas of conflict or challenge that were discussed in this study.

Different timelines, priorities, needs

Differences between partners' expectations with respect to group timelines, priorities, and needs were discussed in almost all of the interviews. This was seen as a challenge to effective collaboration and more fundamentally, an obstacle to relationship building and some of the values above, such as respect. Oftentimes, government structures (for example, timelines embedded in provincial legislation or regulation) were cited as an obstacle to successful collaboration. In particular, participants felt that there was often insufficient time to do the necessary background work to lay a positive foundation for collaboration before there were imposed 'due dates' on collaboration.

Kathleen Padulo explains the difficulty of fitting into government-imposed timelines,

The provincial government will come together, hold these meetings, pay for travel for First Nations to attend, but the expectation is that within 46 hours, boom, communities are going to be able to make up their mind. What generally tends to happen, many times with the information, is it's the first time communities are hearing the information and it can be very overwhelming. There are experts in the communities, but not every community and so the information can be overwhelming. Many times, the questions cannot be answered by the experts from government and so there's a level of frustration that will happen immediately. And then we'll have to ask for further meetings and information to come back to the communities.

Many of the participants in this study noted how government priorities can overwhelm communities, even as they struggle to address their own crises. Given the lack of personnel and the urgency of many community issues, pressure to spend time and resources on government files becomes an additional burden for those working at the community level. Kathleen Padulo shared more of her perspective on this challenge,

Working with communities through their protocols is so much easier than being forced to work through the government's mandates and protocols and timelines and expectations. I believe there's opportunity where we can learn from each other, but there are gaps, I guess it would be almost an 80%, kind of realization from the provincial level that 'wow, you know what? We're spinning our wheels and it's not working' and First Nation communities are no longer cooperating and are responding by saying 'we have limited funding and different priorities.' For example; the province may have 5 pieces of legislation they want reviewed in 30 days, however, the reality is a water crisis in a First Nation community takes priority. It's very challenging dealing with various Ministries who have teams working on one file, while at the First Nation organization or community level, you may have one person responsible for 3 positions.

Kathleen emphasized that government expectations are out of synch with community realities, which influences how communities are able to engage on government priorities, she explains,

Government has an expectation that, 'we'll go there and everybody will be briefed and know exactly what we're talking about by the end of the meeting,' when that isn't the case. Maybe a couple people will have the capacity to have that information briefed within their community ahead of time, briefed within a few people but, in reality communities will take the information back to debrief their communities, so that the communities can say 'oh, okay, that's what that means,' or, we need to think about this a little longer' and First Nation community timelines are very different than government timelines.

This quotation highlights that underlying many of the challenges in this section, is the lack of adherence to a nation-to-nation approach to relating. Rather than engaging First Nations in the development of priorities, the government is approaching them with priorities clearly defined and legislation already drafted, usually with a timeline for enshrining the legislation in law. This goes against the suggestions made by participants in this study, perpetuates antagonistic relationships and hinders collaboration.

One participant illuminated the challenge of different timelines and priorities from the perspective of industry partners,

I mean, if it's like 'oh we can't put a schedule? We don't know how to do this? How do you factor in productivity codes in here? How is the schedule? It's out of our control?' Then uncertainty creates nervousness and nervousness for the investors mean they don't want to invest. So, that's the challenge. They want certainty.

The challenge of identifying how long it will take for communities to provide Free Prior and Informed Consent (FPIC) and the unknowns of the implications of the process from an industry perspective (for example, how long will it take, how much it will cost, and what a community's decision will be) to meaningfully engage with Indigenous Nations can be an obstacle to working together on projects.

Within this study it has become apparent that oftentimes, practitioners in these contexts see their work nested within a bigger picture and place current projects in a trajectory toward larger community goals. However, this can also create a challenge for industry as described by a representative from a global engineering consulting firm who participated in this study,

I don't know how to build a city or a community. What is a community? How do you build community? So that's not factored in to industry processes and decisions. Because these issues are broader issues, that we don't ignore, but it's not our expertise, we don't know how to, we can maybe try to provide something, but, wouldn't it better if it came from someone who knows how to deal with those issues? And that's the challenge the company sometimes deals with, that people sometimes think that the potential project might be their saviour for everything. In order to address this challenge, participants from industry recommended informal meetings over meals to explore each other's priorities, needs and interests and then

finding ways to support those community priorities, as a key element of cross-cultural work, even if those priorities are periphery to industry's goals and objectives.

Once more, that value of relationships is central here, building meaningful relationships and dialogue to determine each other's goals, priorities, interests, constraints and timelines to be able to bring what might be seen as diverging together. At the same time, working to engage the cultural protocols of those you are collaborating with becomes an essential element of determining timelines and priorities. As Kyle Powys Whyte suggested, "I think most tribal people don't understand a lot of this stuff and for them it just seems like a huge learning curve and a lot of needless protocols and things like that that don't really fit into their schedules." The participants in this study highlighted that understanding the importance of engaging Indigenous Nations in culturally appropriate and respectful ways should be central in professional development training and post-secondary education.

Another timeline issue related specifically to meeting agendas. Participants spoke to the common approach of filling an agenda to the point where there is no room for discussion and dialogue among participants. Oftentimes, this occurs by under-estimating the amount of time things will take and by trying to do too much in too short an amount of time. Over-scheduling is met with frustration and with people leaving the meeting feeling as though they were not able to fully engage in the topic or have their voice heard. Therefore, the suggestion from participants in this study, that it is key to have multiple team members collaborate on the creation of agendas and to ensure that timelines are realistic for the amount of dialogue expected is important. Elder Pat Tangie took this idea farther and noted that meeting agendas and timeframes do not give enough time for

dialogue or to discuss all the important elements that need to be a part of the conversation, such as the needs of all of Creation and all the other beings.

On one hand, it seems apparent that in working on environmental challenges, dialogue would include a focus on the other beings in creation, yet oftentimes, the dialogue centers on human needs and concerns, without taking the time to consider the rest of creation. To support such dialogue, means operating from a different perspective and worldview, which sees the importance of considering the topic at hand beyond the human needs and concerns and toward the needs of all of creation.

This section has highlighted some of the key issues with respect to differing timelines, needs and priorities that were discussed in this study. This section provides some examples, insights and solutions from participants in this study in addressing conflicts that arise commonly in cross-cultural environmental collaborations.

Funding

It was common for participants to identify challenges related to funding in cross-cultural work. These challenges related to who controlled funds and had access to funds, projects being characterized by a lack of funds, among others that are detailed below.

Kathleen Padulo discussed the challenge of communities having to compete against one another for funding to address the issues at the community level,

Coming from the community level, communities are consistently competing against each other to find funds, federally, provincially, that's what we're finding. And so, when a funding announcement comes forward from the provincial or federal government, the Chiefs of Ontario, other organizations, political territorial organizations, we do not compete for that money because it has to go to the communities.

Kathleen also believes that funding constraints add to “burn out” for people working on Indigenous issues, she described this in our interview,

Right now, we tend to at the community level, we can get a lot of work done and be really creative in organizations and at the community level but sometimes that creativity burns us out... because we work on too many files and we’re always trying to get the best work done for the least amount of money and the least amount of time and that isn’t always ideal.

This challenge often results in a lack of staff/personnel working in organizations and at the community level, as well as contexts where communities are responding rather than dealing pro-actively with issues. This cycle of working to address crises as they arise creates a ripple effect of challenges, which impede the effectiveness of community organizations and Indigenous Nations themselves.

Kyle Powys Whyte explains another challenge around funding, specifically who is able to obtain funding and how that can interfere in relationships in cross-cultural collaboration, he explains,

The other end of the spectrum that I deal with a lot is conflicts that arise with the funding structure for collaborations. For example, oftentimes tribes will lose out on money that they should get because some institution or federal agency requires a lot of overhead. Why is it that tribes would have to pay overhead or have to give up some of their money to go into the overhead of this other group? The tribe itself can’t serve as a lead of the project, so there are certain things where the funding structure is perceived to be problematic. Because tribes are not respectful of their government status, and so then of course, oftentimes if a tribe gets upset over something like that, even if you can replace funding with equivalent value, it still suggests that tribes are less of a partner, on paper. Then a lot of the non-tribal people won’t understand why tribes take that so seriously, why that’s such a big problem.

Generally, participants spoke to the lack of resources across the environment sector, regardless of whether it was a community organization, a provincial level organization, a school board, or an Indigenous Nation. Having to operate under a chronic shortage of funding creates additional stresses, which impact upon the effectiveness of practitioners in their roles.

Participants noted that lack of funding in this area can mean that staff are employed at significantly reduced rates than they would be in the same roles working for government or industry, which can result in difficulties in retaining qualified staff. Similarly, the short-term nature of most funding agreements mean that for many people working in communities or not-for-profit organizations their positions are insecure, which again presents challenges for retention as well as high staff turnover. Finding sources of funding to address these critical gaps continues to be an on-going challenge identified in this study.

Government Structures Impede Respectful Engagement

Participants spoke to the difficulties that existing government structures present to respectful collaboration. From not having resources available to obtain tobacco to not having a structure in place to acknowledge and address spiritual concerns with respect to resource issues, there were a number of structural obstacles within government identified in this study. This section will explore the ways in which government processes, systems or lack thereof impact on the ability of those in government to engage in respectful cross-cultural collaboration. The goal in illuminating these impediments is so that we can seek to remove and eliminate these obstacles thereby improving the quality of collaboration between government and Indigenous Nations.

A central impact of government structures impeding respectful engagement is around the importance of relationships. Government representatives in this study identified several areas where they saw improvements could be made, but that government systems impeded this from happening. For example, Gordon Kayahara spoke about the need to build relationships and understanding between government and Indigenous Nations and noted some potential ways of doing this, including regularly hosting meals for First Nation community members and leadership. Yet, it was acknowledged that without a clear ‘outcome’ or set of objectives (beyond relationship building) providing funds would be risky from a political standpoint. Gordon Kayahara and I further explored this theme in our discussion,

I think intellectually they [government] see it’s needed [relationship building] but the government always, it’s the implementation where they really fall apart... ‘We’re just building up relationships’ is too hard of a sell. The structure isn’t there because you’re filling out your expense forms and trying to get permissions and that’s what you always run into is ‘what’s the objective?’ so the government’s caught because they have to show their spending of tax payer money

Another example that illustrates this challenge came from Gordon, who noted that there was interest within one of the community’s he worked with, for government and the First Nation to participate in more formalized knowledge sharing and one potential idea for doing this was to host government employees in a remote First Nation to have them work with Elders and Knowledge Holders on the trap line for a season. Yet, when this was suggested, the challenge of accounting for funds with opposition parties was identified as a key obstacle to being able to undertake such a program, Gordon explained,

How can you do that in the government? You’re going to pay some of your staff to go up there and go trapping? And so, you have to justify it and the

government's worried, 'jeeze, you know, someone in the opposition's going to stand up and start saying you're wasting our money, look at this you're basically creating a holiday for your staff and you're wasting our money,' and so we don't have the structure, the government really doesn't have the structure to do that. For Gordon, needing to move beyond talking about improving relationships to creating the structures to support relationship building is essential. He suggested a possible solution: that the government needs a specific pot of money with a focus on relationships with Indigenous Nations to avoid having to justify relationship-building expenses out of other budget areas.

Similarly, Gordon identified that there were issues with government structures when trying to follow cultural protocols, he commented on his experience of trying to account for tobacco purchases within existing government structures,

there's no way I can hand in an expense account when I buy tobacco.

I have to pay for it myself, because I can't get money back because the form is all electronic pull-down menus. There is one for 'other' expenses but then they ask what it is and I put tobacco, the auditor would come back and say, 'why are you spending money on cigarettes for your personal use?' it'll come back that way... the structure isn't there because you're filling out your expense forms and trying to get permissions and that's what you always run into is, 'what's the objective?' so the government's caught because they have to show their spending of tax payer money

Participants in this study identify that creating not only the systems, but also the understanding needed to make space/resources for employees to build relationships and access the supplies that enable government representatives to follow appropriate cultural protocols and therefore, respectfully engage with Indigenous peoples is an important leverage point within the government. One suggestion was that government should

purchase things like tobacco in bulk and ensure that staff know it is available and why/when to use it.

Kathleen Padulo spoke about the differences between government structures and those at the not-for-profit and the community level. She noted that most government directors have a large staff, with many individuals working under them and supporting them in their role, but that for those who work on behalf of communities, this is not the case. In contrast, at the time of our interview Kathleen only had one support person in her role, yet government engages with her as though she has the same capacity and staff as they do. This lack of understanding creates conflict, especially when government timelines are tight and they are seeking immediate responses from First Nations on their priority files. Supporting organizations and communities with funding for staff to properly engage on government files is crucial.

Supporting Indigenous people who work in government

One government employee discussed the challenges with bringing Indigenous staff into the government and noted that they often have very little support. Unfortunately, this can lead to negative outcomes, such as the experience described by Elder Pat Tangie in the previous chapter, where she was not trusted within government or her home community when she went to work in government. Participants suggested needing to change the overall culture within government to address this and create structures to support Indigenous staff members in their roles. Approaches identified in this chapter, such as mentoring and coaching by and for Indigenous staff in government could be one means of addressing this issue.

There are numerous examples of government systems and structures impeding relationship building and respectful engagement between government and Indigenous Nations in this study. Kyle Powys Whyte noted that Indigenous peoples are acutely aware of this, and oftentimes very patient given the structural impediments to respectful engagement, he explains, “tribes understand that because of the way things are set up, that it’s obviously difficult for provincial or state governments or federal governments to interact fluidly with tribes.” Identifying the most problematic government structures and seeking to transform those becomes a key priority in building ethical approaches to cross-cultural collaboration.

Resource Constraints

Resource constraints are an extremely common challenge that participants in this study identified. As Kathleen Padulo explained, “Communities are also overwhelmed with the plethora of files that they have to deal with on a daily basis and competing emergencies.” Not only do communities have myriad files requiring their attention at any given time, they often lack the staff, technology and financial resources to meaningfully engage on each file as they wish they could.

Chris McDonell, a participant from the forest industry, described how the resource constraints at the community level creates challenges for engaging and knowing what is appropriate in terms of timelines and expectations,

It is always in your interest and actually always quite productive to be proactive and to keep regular interactions and simply ask the questions ‘what are you working on?’ ‘What are you thinking about?’ ‘Here’s what we’re doing,’ because their plates are so full as Chiefs and Councils and staff with many things. They can’t move forward or think about projects necessarily in the same way as in a

business environment, so, trying to figure out the right level of engagement remains a challenge

Related to this issue of resource constraints is the challenge of high turnover of staff both in government and at the community level. Participants in this study spoke to the difficulty this creates in terms of building relationships, working at a government-to-government level and establishing continuity in long-term projects. As Kyle Powys White who works in both the United States and Canada suggested,

If you look at it as a government-to-government or nation-to-nation type relationship then it's suggested it's kind of the long-term maturation of the relationship but, both tribes at least on the US side as well as federal agencies have high turnover. I mean a lot of times the person in a federal agency tasked with working with a tribe, that's just one little step and they're onto the next thing. It's not a career for them and so then you get a lot of turn over there or if a federal program gets cut or something like that, then you would lose that person and tribes as well, especially in the US, because we're stuck with these IRA governments that are very fickle and sensitive to politics and they're not very enduring. They do a lot of things but one of the things they don't do really that well and there's various exceptions to this, is they don't keep a consistent leadership and staff and so on and it can oftentimes be very short period of time and government can get recalled, a tribal chair can get recalled after a year, a year and a half in office

Participants who work primarily in a Canadian context spoke to this challenge as well, suggesting the need to build structures and systems to support institutional memory and to maintain the integrity of projects as they transition through staff.

Many participants in this study noted that they often remained in touch with people who they no longer actively collaborated with. This has been the same for me in many instances as well. In this way our relationships evolve to be mutually supportive

and beneficial in other ways over time—networking, knowledge/information sharing, or as a sounding board and source of advice—which adds richness to the work we are currently engaged in.

Another resource constraint that participants spoke to was the lack of guidance and training material related to facilitation in cross-cultural or more specifically Indigenous and non-Indigenous contexts. The lack of training opportunities in facilitation speaks to an important gap that professional development training from this study can address. Similarly, participants noted that training in Indigenous methods of leadership would also strengthen their cross-cultural work. Robyn Smith spoke about this from her perspective as a non-Indigenous person working in an Indigenous organization,

It would be good to have systems in place—informed by the various people that we work with and based off of Indigenous principles— and then an Indigenous person in charge who could you know carry it out, right? Because I think then you could start to have those checks and balances, because I think we, I think most people need that

Participants spoke to the impacts that resource constraints had on their organizations. Oftentimes, resource constraints had tangible impacts on their ability to engage organizational boards and project partners as well as address the concerns/needs of their target audience(s). Sometimes the lack of staff time and personnel meant that they were not as effective as they could be at addressing issues in their communities.

Robyn Smith explains from her experience,

Everybody's working with limited resources. So, I think maybe that would be another skill too is learning to make the most of limited resources and I think it contributes to the fact that we could be doing more in some circles, like with the

school board. But, we don't do a lot of active outreach and I know that that's something that we need to ramp up if we want to see more workshops happening but again, it's that whole capacity issue.

This cycle of resource constraints leading to inability to fully realize the potential and goals of the organization and meet the needs of their target population is an obstacle to the overall effectiveness of organizations in this context.

What is effectiveness or success?

An overarching theme in the interview discussions was an exploration of what effectiveness and/or success looks like in these contexts. Depending on the participant and their organization, the answers ranged from quantitative methods of program evaluation to qualitative modes of assessing the effectiveness or success based on relationships and shared values. Oftentimes, there were more 'official' measures that were discussed primarily, but then a host of other factors that were seen as important to gauging the overall effectiveness or success of collaboration.

For participants who work in government or industry, there were often third-party processes in place to help understand whether or not collaboration was effective. For example, in a forestry context in Ontario, the Forest Stewardship Council provided essential data to operators in this study, in terms of their engagement with First Nations and the satisfaction of their partners. Regular audits by a third party were seen as an important means for knowing whether or not they were 'on track' with Indigenous engagement. In this case, positive reinforcement that they had not received Corrective Actions, had any work suspended, or lost any certificates were the central reference points for measuring effectiveness. Similarly, the role of government processes that

provide an avenue through which communities can voice their dissatisfaction were also seen as important indicators for industry. An industry representative explained,

We're not part of any legal challenge, the Chiefs are not sending the CEO letters of complaint. There are other mechanisms through the forest management planning process that a forest management plan can be bumped up if a First Nation has an issue so, the hard work of many folks is demonstrating that relationships can be developed and other mechanisms and so we're not seeing other tools being used by communities because of unhappiness.

In this way, elements of policy and regulation are seen as indicative of the effectiveness or success of collaborative efforts. Yet, at the same time, depending on third party auditors and government policy/regulation to define and evaluate success puts a lot of faith those processes. It assumes that the policy/regulation is fair and appropriate and that auditors are well-trained, unbiased, and able to accurately assess the working relationship between the parties.

One forest industry participant noted that First Nations often evaluate the work rather differently, "When you're developing and working with the communities, they are placing a heavy weight in their engagement, in their analysis, I believe, on the integrity of the people across the table." Rather than relying on external processes to define whether or not the process is working, the effectiveness depends on the integrity of those at the table. This assessment is also supported by the interview data collected in this study, where many participants noted the importance of having a good rapport with those they are working with and that everyone involved is able to engage with basic or advanced people skills. Integrity and deep engagement are consistent with the attributes identified in this study and described above, particularly that of authenticity.

Related to the need for integrity, is the commitment to action and acting as able given current realities, forest industry participant Chris McDonnell suggested,

You've got to be consistent and keep at it, but that sort of recognition of acting upon a challenge or objective that they have and fitting it into your activity. I continue to be surprised that that's how they measure their relationships. Therefore, meeting the goals of the project explicitly may not be as important as taking honest action to meeting the goal eventually. Algonquin Elder Larry McDermott echoed this sentiment, noting that oftentimes as a group works through a collaborative process goals and objectives may change as the group learns together and develops relationships. Thus, simply noting whether or not project goals are met may not reflect whether or not the collaborative process was effective or successful. Several participants spoke to the need for goals/objectives and subsequent evaluation to take place on various levels. In this way, the evaluation of whether or not collaborative work is effective could take place through several modes, for example, checking in with everyone as a group regularly to discuss group processes and communication, monitoring/reporting on group activities/goals/objectives formally, and finding modes for assessing the quality of relationships between partners, which could be done both internally and externally.

Representatives from government spoke about the government's focus on economic development and achievement of project goals as indicators of success, but the participants also noted that for them, effectiveness or success was indicated by other factors, as Gordon Kayahara explains,

When some of the funding is used for some of the more traditional teachings and it comes back into the general Ontario, some of those traditional teachings, people start picking up on it and then our approach, the whole approach starts to change. To me that's success, so it's not, the MNR defines community success as

economically successful and to me it's no, it's going back to the medicine wheel, eh? You have to have all four to say you're successful. Yeah you're physically successful, right? You can't forget everything else. You see the spiritual success and the emotional coming up but it's not quite there yet, but that's I think when the communities start having that balance and the balance starts reflecting throughout everyone else. That's when you, I think that's when you'll start to see success. That's to me is when I'd see it.

This is a much broader view of success that is predicated on the idea that community health and well-being is critically important to project success and that it can be measured by applying the medicine wheel and assessing the physical, mental, emotional and spiritual elements of everyone involved to gauge whether or not collaboration is effective or successful. Similarly, Lilith Wyatt evaluated the success of the collaborative work she is involved with in broad terms, she explains,

So, what else does success look like? I think that making visible Indigenous histories and voices and knowledges and making those things something that are as knowingly referred to and operated upon as the non-Indigenous reference points, which of course we, all the non-Indigenous people, aren't even aware that we operate upon

This can mean changing how success is understood and working with project partners in ways that make space for multiple knowledges and traditions to influence group processes and approaches. Lilith suggested that disrupting western processes would be helpful here, for example, rejecting linear thinking and approaches to evaluating success and instead working within Indigenous worldviews to gauge effectiveness. She suggested that shared work is based on a foundation of both Indigenous and Western ways and that one does not dominate the other.

Kyle Powys Whyte also spoke to what it means to be successful or effective and suggested that when collaborators actively acknowledge tribal realities and goals and make those the foundation of their work collaboration is more successful, he explains,

Scientists have been more successful when they really honoured the fact that those are really groups that are sovereign, self-determining, that pre-exist Canada and the United States. You see too, with non-tribal scientists, non-native people that work for tribes, that there's some that do better or worse, so, for example, one tribe I work with, they have these 2 white guys that work for the tribe, I think they have a really interesting point of view, it is that they're a natural resources agency, it's all white, because actually the tribe doesn't have anybody with scientific training, so these guys they say explicitly that their goal is, that their work needs to ensure that when they retire or before they retire that their jobs are taken by tribal members.

This example shows that often success in these contexts is not something achieved through one project, but through several projects over a longer time frame, such as a lifetime or career. In this example, success can be measured by how many people from the tribe work at the agency or whether or not the approaches the agency uses to train and recruit potential employees are effective. Kyle also shared that often in the projects that he works on, as part of initial discussions and negotiations, an agreement on a 'minimal benefit' is achieved. This means that even if the overall project does not succeed or go forward, there is still a minimum benefit that has already been agreed upon, which will ensure that one party does not walk away with nothing if the project folds. He described how this has worked in one project he was involved with,

So for example, one project, it was pretty unclear actually, as to whether the collaboration would actually pan out into a joint research project, that was very unclear, but we had agreed that at a minimum, if this led to the exchange of just some information or understanding about a particular ecological relationship that

the tribe and the scientists were interested in and led to the development of some friendships, we're very clear about that, then that would be fine, if nothing further happened, and so, there you become very clear that there might have been this goal that got us initially involved in this, but we'll be very happy, if the worst case scenario is that we hit this, and so, I think really the difference is oftentimes the big outcome is some kind of measurable thing, like a policy change or a particular research result or a grant or something like that, right? But then the process itself should provide benefits. The process should be something that if you go through the process then it's worth it. It's worth doing that

This approach also speaks to the necessity of following-up and maintaining communication about whether or not the project is serving the needs of everyone involved or whether or not parties are benefiting from the shared work.

Other elements of gauging effectiveness or successes suggested by participants in this study included the following:

- The ability of a group to come to agreement on shared purpose for the work, goals and objectives;
- When everyone feels the project is moving in a positive direction;
- The ability for participants to understand one another and act upon what they learn;
- The importance of having an engaged group of participants so that everyone at the table is contributing and feels their voice is heard and valued
- The need for building relationships and getting to know one another to set a foundation for collaboration.

One participant from the provincial government talked about including a variety of perspectives in a project, which can lead to dialogue, debate, conflict and ultimately (ideally) consensus about the future priorities and direction of shared work. At the same

time, he suggested that sometimes this will result in a ‘flop’ where what is learned is that there is not consensus on how to move forward and work together. This participant also noted that often this is not the approach used by government and industry, instead he explains that often government goes into a meeting with a clear agenda and objectives before any meetings have taken place, which often leads to poor outcomes because participants do not feel like they are part of the process. Gordon Kayahara who also works in government echoed this thinking, which is evident in the following excerpt,

So instead government tends to go in and say, ‘we’re doing this,’ instead of going in and asking the question, ‘what are you interested in?’ So, we’re going in and we already know what we want to talk about, but we’re not going in and asking if that’s something they want to talk about

This approach, coupled with the lack of trust and relationships that often characterize these contexts, create a situation where collaborative work is stifled before it begins.

From this discussion, it is evident that measuring effectiveness or successes in cross-cultural environmental contexts requires multiple approaches simultaneously. The focus of evaluation in this work should not only be on noting whether or not the specific, pre-determined goals and objectives of a given project have been achieved, but also on how the group works together and whether or not larger over-arching goals of Indigenous Nations are being supported as part of the collaboration. It is important that groups identify what effectiveness and success means for them at the outset of collaboration and that these discussions include goals for a minimum benefit as has been suggested by interview participants in this study. At the same time, participants recommend that it is crucial that group participants and facilitators are continually mindful of group processes,

ensuring everyone's voice is heard and creating time and space to determine whether or not processes are working for everyone involved.

Chapter Conclusion

This chapter explored helpful approaches and processes, as well as conflicts and challenges that arise as Indigenous and non-Indigenous people collaborate on environmental projects. Many important challenges were identified in this chapter, particularly racism and the on-going impacts of colonialism, which will be discussed in greater detail in the next chapter by bringing in insights from literature to begin to determine steps for moving forward in addressing these challenges both in individual contexts as well as at the systemic level.

Chapter six will begin to explore how, within IESS pedagogy, teaching and learning can attempt to challenge and dismantle the racist, colonial and settler colonial structures and ways of being that inhibit effective cross-cultural collaboration and transformation toward a society where Indigenous Nationhood and rights are respected and form a foundation for cross-cultural collaboration.

Chapter 6: Results and Discussion- Applying a Critical Theory Lens

In this chapter I engage multiple literatures in making sense of the interview data, which spoke directly to experiences of racism. The literature I engage with includes work within the field of psychology and anti-racism. These literatures provide a set of terminology and frameworks to better understand the conversations with the interview participants and to explore the power dynamics at play, as critical theory instructs.

Subtle Racism

Participants in this study shared their experiences of racism throughout their lifetimes as well as in their experiences working cross-culturally on environmental challenges. Participants articulated that in their day-to-day experiences, racism had become more subtle and tougher to grasp than in their previous experiences of racism, which were more overt. In analyzing the interview transcripts, I noticed that many of the Indigenous participants and participants of colour, used the same terms when describing their experiences, especially the word subtle. I began to search literature for insight on this pattern.

Scholars in the field of psychology have contributed to an assessment of modern racism, in particular with respect to post-secondary institutions and in the wider public. Scholars such as Clark, Kleinman, Spanierman, et al. (2014), Ford and Maleny (2012), Suarez-Orozco, Casanova, Martin, et al. (2015) Sue (2004, 2010), Pérez Huber and Solarzano (2015) have been working to generate an understanding experiences of racism today and to develop a set of terminology to describe the various ways racism/oppression manifests itself in the world around us. Significantly, the description of the experiences in the literature matches up closely with the stories heard through this research. The

research of these scholars affirms and aligns with the experiences shared by participants in this study, surprisingly, even at times mirroring the exact language used by people in this study, for example, that racism has become more ‘subtle.’ The next section explains the concept of microaggressions and the experiences of microaggressions described in the literature.

Microaggressions

Scholars within the field of psychology have been working to elucidate the ways in which Indigenous people and people of colour experience racism and have begun to describe people’s experiences with ‘new’ forms of racism (Clark, Kleiman, Spanierman, Isaac, & Poolokasingham, 2014; Suarez-Orozco et al., 2015). In the introductory chapter to his 2010 edited compilation, Microaggressions and Marginality: Manifestation, Dynamics, and Impact, Derald Wing Sue provides a definition and explanation of the term microaggression as,

The everyday verbal, nonverbal, and environmental slights, snubs, or insults, whether intentional or unintentional, that communicate hostile, derogatory, or negative messages to target persons based solely upon their marginalized group membership...The most detrimental forms of microaggressions are usually delivered by well-intentioned individuals who are unaware that they have engaged in harmful conduct toward a socially devalued group. These everyday occurrences may on the surface appear quite harmless, trivial, or be described as ‘small slights,’ but research indicates they have a powerful impact upon the psychological well-being of marginalized groups. (p. 3)

Pérez Huber and Solorzano (2015) note that the term microaggression emerged from Dr. Chester Pierce in the 1970s, but only gained currency recently as theory and research around the topic has advanced a collective understanding of the experiences of people of

colour in a variety of contexts, including post-secondary institutes. Pérez Huber and Solorzano (2015) write that,

Racial microaggressions are a form of systemic, everyday racism used to keep those at the racial margins in their place. They are: (1) verbal and non-verbal assaults directed toward People of Color, often carried out in subtle, automatic or unconscious forms; (2) layered assaults, based on race and its intersections with gender, class, sexuality, language, immigration status, phenotype, accent, or surname; and (3) cumulative assaults that take a psychological, physiological, and academic toll on People of Color (p. 298).

Furthering the understanding of microaggressions, Jones and Galliher (2015) explain that microaggressions take three general categories, including microassaults, microinsults, and microinvalidations. They explain,

Microassaults are often conscious and deliberate attacks, within limited or constrained settings, and against out-group members (e.g., serving a White patron before a person of color). Microassaults are considered covert because those who deliver them attempt to maintain some form of anonymity when using them in more intimate situations. Microinsults and microinvalidations are generally unintentional, and often unconscious, which is why these two forms of discrimination are so insidious. Microinsults often include non-verbal gestures and verbal messages of explicit or implicit out-group inferiority (e.g., a White teacher ignoring a student of color). Microinvalidations are communications that suggest that out-group differences are not important, and these communications can often be challenges to one's identity (e.g., *You're being oversensitive* or *I don't see color; I only see human beings*) (Jones & Galliher, 2015, p. 2)

The authors note that overt racism and other visible forms of racism have been decreasing, but that covert microaggressions have increased, which they suggest may be more harmful to marginalized peoples than more overt racism given the significant cognitive work that needs to be done to make sense of the microaggression people

experience (Jones and Galliher, 2015). Jones and Galliher's (2015) work echoes the experiences of participants in this study who described their experiences of racism in similar ways. Yet, as other scholars have demonstrated, there is a dearth of research that investigates the specific experiences of Indigenous people with respect to microaggressions, not only within formal learning environments but also in wider society. This study begins to address this gap in the next section, by sharing participants' experiences with microaggressions in the workplace, in their daily lives, and in environmental collaboration.

Participants' experiences with microaggressions

Indigenous participants in this study shared many stories about their experiences working with government, industry, environmental organizations, and the broader public. The above literature exploring microaggression theory has given me another lens through which to view the data in this study. After reviewing the literature on microaggressions, I re-read the transcripts generated in this study to identify participants' experiences with microaggressions in the workplace, education system, and elsewhere. Below I will share some stories, which illuminate the ways in which subtle racism is enacted in environmental collaborations with Indigenous and non-Indigenous people in this study.

The stories presented below identify microaggressions from this study and also demonstrate the resilience and courage of the participants in addressing the microaggressions head on. To me, this reinforces an observation I have had in reading the literature on microaggressions, which is that oftentimes, though they are described as subtle, they are not subtle to those who experience them. I think explaining them as such centers the experience of the perpetrator of the microaggression rather than the victim, for

whom the exchange was not subtle, but jarring and blatant. For me, learning the terminology around microaggressions constituted a veil being lifted from my eyes and I began to see microaggressions all around me: in television shows, on the radio, in popular music, in the contexts where I work and teach and in the data set from this study.

I share the stories from participants with the hope that it will bring to life where and when microaggressions take place in collaborations and particularly so non-Indigenous people may examine their own speech, contexts, and experiences with microaggressions and work to eliminate the roots of microaggressions in their own actions and more widely within their communities.

Stories of microaggressions

One Nishnaabeg Elder shared this story of an experience he had in negotiating a land claim for his nation,

When I was sitting down with a negotiation team for the land claim. The first time I experienced that it was in Ottawa, there was everybody and his uncle at the table. Federal people, provincial people and I said, 'one of the things is that I read this one paragraph,' and I said, 'we're Indigenous, we're Aboriginal, we're First People, we're Original People, so, when you look at that, what does that mean to you?' It's like changing hats, either call us Indigenous or why do you call us Indigenous and why do you call us Aboriginal and all in the same breath, right? Now, to me that means you don't understand who we are. 'Well, you're Indigenous,' and I said, 'no I didn't ask you that'. I'm asking you, what are you?' but I said, 'we're Nishnaabeg and I don't hear that word there'...

What does Nishnaabeg mean? That means people of the land. Depending on the territory that you go into, we short form to Nish, right? And so, with government, they say Indigenous or Aboriginal, and I think 'what's this person talking about?' 'They don't even know who we are.'

And I said in that meeting, ‘I fail to see why you don’t call us Nishnaabeg or whatever territory you go into, up north, where it’s Mushkego, why don’t you use that term? Is that taboo in the government circles or the people that you’re working with or teaching? In my experience, a lot of people don’t take time to really digest that and say, ‘is it because that word Indigenous holds a different meaning?’ Is there a different meaning for Aboriginal? Is there a difference between them? When you say that? If you’re identifying us, in that paragraph, which consists of maybe 4 or 5 sentences and you’ve used different names, to me that indicates that you don’t know who we are and that would clear a lot of the mystery up because, like I said, you have to be really attentive to the way that the person is talking and they’re talking from the perspective that we’re Indigenous, we’re Aboriginal, we’re all these different attachments that you put on us, but you never once asked me, are you Nishinaabeg? Are you Mushkego? What territory do you come from?

This story depicts a situation where a Nishnaabeg person is reading material from the government regarding their Nation’s land claim and the process they have outlined for engagement and his nation is misrepresented and only vaguely identified. This microaggression stems from ignorance of the various Indigenous Nations, territories, and treaties and indicates the need for professional development to address this lack of knowing.

This tendency toward generalizing about Indigenous Nations and people is well documented as a disrespectful approach to engaging cross-culturally, yet, it is still common for non-Indigenous people to be unaware of the particularities when it comes to traditional territories and Indigenous Nationhood. This speaks strongly to themes that have emerged in this study, such as knowing who you are working with and the importance of relationships. To me, this story also illuminates a key responsibility in

cross-cultural collaborations that collaborators must do the necessary research to avoid perpetuating microaggressions in this manner.

This Elder shared numerous stories about his encounters with police, game wardens and conservation officers over the course of his lifetime out on the land. The interactions he described of the harassment and continual need to defend his territory and practices to settler law enforcement officers offer other examples of common microaggressions. Here is an excerpt from our interview, which speaks to these issues,

I came down from Wawa one time and I stopped in the bush on my way home at a place called Coldwater Creek. I went by there and I saw some birch bark on the ground and I thought, 'well I'm going to pick up some birch bark that'd fallen down.' So, I go and put my tobacco down and pick up the birch bark, fill up a couple of garbage bags and take it for sweats, fires, and so on. When I did that, it doesn't matter where it is, if you know your history. So anyway, I turned around and came out of the bush and put the couple of bags in the car and then two game wardens came along. And of course, at the time I'm sitting on the NAPS board, the police services board and I knew how they acted and what they did and the board took training as well, about what police officers do, right? And they're archaic, they use intimidation, 'cause I have my gun,' so anyway, they came up to me and asked, 'what are you doing here?' I said, 'I'm picking birch bark, for sweat lodge ceremonies.' 'Did you take them off the trees?' and I said, 'No! We don't do that.' I said, 'it's fallen on the ground,' and he said, 'well, this is a provincial park.' And I said, 'it doesn't matter!' I said, 'I put my tobacco down, I already asked permission' 'ohh what do you mean, you put tobacco down?'

They didn't know what the laws were, right? And that's what Nish people believe, the ones that are traditional, and I said, 'every time we do that then we put our tobacco down or semaa and we ask permission and then we take, right?' and he said, 'well, where'd you learn that?' I said, 'Well, first time I learned that, my Grandfather took me in the bush and showed me, told me why we do that.' I

was just a little guy then. And, so, he said, 'can you open your car?' I said, 'come on!' I said, 'alright' and opened the car, here are the bags. 'Well,' he said, 'didn't you know that if everybody came here and picked birch bark and this a provincial park... yada yada yada' and I said, 'you know what? Across the road, there's a contractor logging. Did you guys go over there and check on him? And what he's doing? What he's taking? Has he got a licence?' 'Well you're not in your treaty area,' he responded. I gave him my status card finally and I said with our treaty we haven't got our land yet, so I have Aboriginal rights right across Canada. Anyway they kind of looked at each other and I could see what they were thinking and then I asked them, 'did you take diversity training?' 'well yeah, blah blah blah,' Anyway, they went on and 'well, we could charge you' and they kept on saying that. I said, 'you're going to charge me for picking up birch bark?' and they said, 'yes sir' so, I said, 'okay, charge me' and I said, 'you're going to look pretty stupid going to court when the judge hears the charge,' and I said, 'if that happens, I will go to court and I'll do my best to see that you're fired,' and they said, 'Are you threatening us?' and I said, 'yeah' I said, 'you got other things to do besides this, right?' and so anyway, the long and short of it, I said, 'oh by the way, I won't get into the rest of it, but I know your boss. I've worked with him for many many years.' 'Oh you know him?' and their hands drop from their guns....

So, I mean, it was kind of stories like that. You run into those things, you know? It's about knowing the history. Another time, I was in Missanabie, setting up a sweat lodge along an old road and I was picking up old trees that have been cut for a fire, and then an MNR truck pulls up. 'You can't take that, where are you taking that?' and I said, 'I'm taking it for a sweat lodge, fire' 'oh no, you can't, if you leave it here it's going to go back into the land and it's going to fertilize, yada yada,' I said, 'so I can't take that for a sweat lodge ceremony?' I said, 'it's spiritual.' 'No sorry, I'm afraid not yada yada,' so what I did was I dragged it on and finally I said, 'I'm carrying a card' and he said, 'what do you mean?' and I said, 'I'm a Missanabie Cree member and you're in my territory. Here's the card' 'Oh sorry, you take as much wood as you want!' he said. You know what I

mean? So when you look at the difference, right? Once you know whose territory you're in then you know what ground you can stand on. One of the things that I learned early is that you have to respect the territory you go into.

The two stories shared in the above excerpt show that it is common place for traditional people to be questioned and harassed while on the land carrying out their practices, yet that when law enforcement officers are more informed about territories and rights, that conflict is reduced. Both of the anecdotes highlight the colonial structures that operate as power over Indigenous people and their nations and that put Indigenous people in the position of having to defend their actions to law enforcement that are often trained to be intimidating toward potential 'offenders' despite Canadian constitutional law, which protects Indigenous rights to access their traditional territories. The role of law enforcement, conservation officers, and game wardens in perpetuating microaggressions is something that needs to be better understood and articulated in future research, especially as the Canadian government continues to pursue an agenda of reconciliation with Indigenous Nations.

Another participant, who works as the cultural coordinator in the off-reserve school near her community shared a story of overhearing another teacher's microaggression in the classroom,

I guess they had people working in this room [the cultural resource room] before I came in and they didn't, I guess they didn't push. So, I came in and heard things and I would speak up. There was one teacher, for example, I was in my room and I could hear him talking in his room. He had the door open and he says, 'when Columbus came here,' this [laughs] you know, this is a true story! He says, 'when Columbus came here the Native people didn't want to feed him. So, he knew an eclipse was coming, so he told the Native people, he said, 'I'm from the sea and

I'm going to make the sun disappear.' So, the teacher said, 'so the sun disappeared and Native people got scared and they fed him.'

I was blown away, so I met the teacher after that class and I told him, 'I will be presenting this to the principal,' I said, 'but I would like to talk to you first.' I said, 'We have teachings about the eclipse,' I said, 'we knew about eclipses way before Columbus came here and the eclipse didn't happen when Columbus landed here.' I said, so, 'the moon, when Nokomis Giizehs and Mishomis Giizehs, get together, they get together to talk and they share. That's one teaching'... I said, 'so I would like to know, where did you get your information?' And he looks at me and says, 'uh, well, the internet' I said 'now, I totally agree that the internet is full of bullshit' [laughs] I said, 'so, as a traditional student mentor here,' I said, 'if you want to know anything about our teachings, come and ask me before you embarrass our First Nation students in your class.' I said, 'so I'll be going to the principle now and talking to him about this.' So, I told the principle the same thing, I said, 'our First Nation community, there are members in there from my First Nation,' I said, 'if I was embarrassed, they would have been embarrassed. Do they actually think we were that stupid?' To think that Columbus made the sun disappear? [laughs] and I said, 'we have Chinese people here too. Are you going to start teaching, is that teacher going to say that Chinese beliefs aren't real?' So, he pulled in that teacher right away and talked to him.

This story is another example of misrepresentation of Indigenous people, this time within the public education system in Ontario. This educator noted that there were many other examples like this story and that a significant element of her role as cultural coordinator is to work with teachers through training and time in their classrooms to increase their capacity in engaging with Indigenous Knowledge and other knowledge systems. In the story shared here, the perpetrator of the microaggression is made immediately aware of his wrongdoing and the principal takes action to ensure the teacher's racist behaviour is

addressed. Yet, most schools do not have a designated cultural coordinator on staff who can support and educate teachers about how to respectfully speak about different knowledge systems. To me, this identifies another set of needs, which are reinforced by the literature reviewed above. First, to increase capacity of schools with respect to cultural coordinators and second to provide professional development training to teachers on microaggressions and subtle racism.

Another Indigenous participant spoke to the potential for Indigenous people to perpetuate microaggressions themselves, either by embodying stereotypes through their actions in collaborations or against one another in dialogue. This is an important nuance that has been identified in the literature: that it is not only those in power who perpetuate microaggressions and that everyone has been conditioned in colonial/racist ways of thought and has the potential to perpetuate microaggressions through their words and actions. Here is a short story from another Elder in this study that illustrates this complex dynamic,

As I said before, some people are beyond fixing or contributing in truly a meaningful way, rather than just getting a check for being there. When someone says, 'where's my honorarium or where's my money,' they're half joking, but sending a message at the same time. In my mind, I don't necessarily respect that type of an attitude because these things are important and if you want money from it... you should be there not because you're going to get a check. When I first heard that in meetings I was truly offended by that from an Indian point of view, you know? That bothered me and there's enough of it out there in the general public that then people can say, 'ah, it fits the stereotype' you know? So, everyone's the same no matter what and it's dangerous.

This excerpt spurred a discussion about the stereotypes that are common within mainstream media about corruption among First Nation leadership and within

communities. Issues around financial management and money are common microaggressions in Canada, which is also reinforced by the literature on microaggressions, which has shown that Indigenous learners at university have to frequently confront non-Indigenous people who believe they did not ‘earn’ their acceptance to the institution or that they are not paying for their tuition (Clark et al., 2014). The Elder who shared this story was responding to hearing one of his colleagues continually asking about the money he would be compensated for his time. Adding to this complexity is the need to ensure Elders and Knowledge Holders are compensated fairly for their time and contributions especially given that oftentimes they are unwaged within these contexts.

Another microaggression relevant to explore here and that has been identified in the literature is the expectation by non-Indigenous people that one Indigenous person is seen as a representative for their entire nation or even worse, all Indigenous people (Hill, Kim, & Williams, 2010). This microaggression surfaced in this study as participants described the group dynamics in their collaborations and in particular how many Indigenous people were involved. Oftentimes, participants described ‘the one Indigenous person’ that was involved in the project or described contexts that did not reflect a balance of participants and perspectives. This creates many difficulties in cross-cultural collaboration and places undue burden on the individual who happens to be the one “Indigenous representative” on the board or within the project. This unequal balance and dynamic can mean that one Indigenous person is responsible for ‘decolonizing’ or building awareness among an entire group of people, an expectation that is not only unrealistic but deeply unfair and can subject them to even more hostility. The work of

confronting others' racism, ignorance, and deconstructing problematic beliefs and ways of being should not fall upon any one person, let alone one person of a group that is marginalized in the dominant culture. Lilith Wyatt who works in the environmental not-for-profit sector described this microaggression in our interview. This phenomenon is something I have witnessed in the collaborations I have been involved in and I can clearly recall hearing Indigenous colleagues having to repeat that they are not representatives of their entire Nation or all Indigenous people, but that they will share the information they are gathering with others.

Oftentimes, colonial policies within provincial and federal legislation foster this type of engagement that requires only one or two Indigenous people to be involved as representatives of their entire Nation or all Nations across a given region for community engagement or consultation. Yet at the same time, these participants are rarely given resources to support them in sharing the information with others (i.e. compensation for their time in doing so, resources to print/share materials, etc.). It is crucial to recognize that such contexts can be unsafe for Indigenous people and that they may be subjected to higher instances of microaggressions where there is not an equal balance of perspectives and people. It can also be more difficult to share dissenting views in these unbalanced contexts, which can mean Indigenous participants are not able to meaningfully engage.

I want to acknowledge that overt racism continues today and is something that needs to be countered. Recently, instances of violent, overt racism have been on the rise across Turtle Island, which is extremely disconcerting. Rather than seeing issues of race and privilege as fringe to environmental challenges, we need to see how structures of domination and power are reinforced and work to undermine Indigenous sovereignty and

relationships to land. This study provides examples of microaggressions and racism in environmental contexts, which indicate that despite oftentimes there is an explicit focus on environmental and social justice among environmental practitioners that these movements are still characterized by colonial/settler colonial and racist approaches and ways of relating. Therefore, it is essential that IESS pedagogy takes up a critical discourse around the role of microaggressions in perpetuating racism and in eliminating racist ways of being by learners enrolled in IESS courses and programs.

Importantly, Sue (2010) notes that microaggressions are often carried out by “well-intentioned” individuals and his work and others’ illuminates that microaggressions are frequently perpetrated by individuals with significant power, for instance, professors or teaching assistants at universities (Clark et al., 2014; Suarez-Orozco et al., 2015). It is important to note that microaggressions can be based upon race, gender, sexual orientation, or physical ability and can be perpetuated by anyone regardless of their positionality or potential membership in a marginalized group (Pérez Huber & Solorzano, 2015; Derald Wing Sue, Lin, Torino, Capodilupo, & Rivera, 2009).

The authors write about the invisibility of microaggressions to perpetrators and the need to make these visible to everyone to create safe spaces to discuss racial issues in the classroom and reduce instances of racial microaggressions. Yet, these authors identify a key challenge in that oftentimes perpetrators of microaggressions see themselves as “good” and “moral,” which makes it difficult to acknowledge that they engage in racial microaggressions and can lead them to “engage in defensive maneuvers to deny their biases, to personally avoid talking about topics such as racism, sexism, heterosexism, and ableism, and to discourage others from bringing up such topics” (Sue,

2010 p. 5). These defensive mechanisms move to invalidate the experiences of those on the receiving end of microaggressions and reinforce unequal racial dynamics.

More recently, researchers have begun to explore the specific experiences of Indigenous people with respect to microaggressions. For example, Jones and Galliher (2015) and Hill, Kim, and Williams (2010) explored experiences across contexts whereas Clark, et al (2014) examined the experiences of Indigenous undergraduate students at Canadian universities. The findings of this research highlight the daily racism experienced by Indigenous people in Canada, in academia, at work, in the streets, and elsewhere. Clark et al (2014) write about the complicity of post-secondary institutions in reproducing settler colonialism through an agenda to assimilate Indigenous people into the wider dominant culture and that “Aboriginal faculty and students on the ground in Canada’s universities continue to experience racial discrimination” (p. 113). Similarly, Sumida Huaman (2011) describes the role that educational institutions play in reproducing structural violence against Indigenous people and notes that approaches from peace education theory align with Indigenous approaches to education, given peace education’s focus, which she describes as the

elimination of direct, indirect, structural and cultural violence, focused on social transformation and including five stages: raising consciousness through dialogue, imagining non-violent alternatives, providing specific modes of empowerment, transformative action, reflection, and re-engagement. (p. 245).

These authors echo the finding that “contemporary forms of racial discrimination oftentimes are subtle and unintentional” (Clark et al., 2014, p. 113). Clark et al.’s (2014) research provides a starting point for understanding and addressing the daily racism experienced by Indigenous people in Canada, yet they highlight the need for more

research as much of the work on microaggressions has explored the experiences of people of African or Asian descent in America and does not look specifically at the experiences of Indigenous people broadly or in a Canadian context more specifically.

Based on the findings in this study, providing learners with the terminology to describe their experiences of racism as well as educating non-Indigenous and white people about microaggressions become core elements of foundational learning in IESS. Exploring microaggressions in IESS contexts should also involve dialogue around the various coping mechanisms that enable people who are subjected to microaggressions to work through their experiences of racism/discrimination. Approaches and strategies for reducing instances of microaggressions are another key focus of group dialogue in anti-racism/oppression contexts. In illuminating the racism experienced by Indigenous learners in university settings, the opportunities for change become evident. Asking learners to deeply reflect on their speech, humour, assumptions and stereotypical beliefs can be another element of exploring anti-racism in IESS.

It is crucial for educators at post-secondary institutions to acknowledge their complicity in perpetuating racism toward Indigenous people and others. Clark et al. (2014) provide several suggestions for addressing racism against Indigenous people in universities settings in Canada, including the need for professional development training among university faculty and staff through mandating cultural competency training, updating student codes of conduct and employee workplace rules, implementing cultural awareness workshops for incoming students, and updating curriculum and research approaches by making university education and research more relevant to Indigenous people (p. 123). Many Canadian universities are currently engaged in dialogue regarding

the potential for mandatory courses in Indigenous studies and some institutions have already mandated this requirement (for example the University of Winnipeg and Lakehead University). Other universities are exploring what it means to Indigenize and how they can set about Indigenizing the teaching and learning, faculty and other elements of the university.

Researchers have also begun to elucidate other impacts of structural violence and racial microaggressions against Indigenous people in Canadian universities and elsewhere. Clark et al (2014) write that this context of racism often forces Indigenous learners into an “energy-sapping role” that requires them “to disabuse non-Aboriginals of commonly held assumptions about their persons based on their physical appearance, names, languages, and cultures” (p. 121). Relying on Indigenous learners to dismantle racism and oppression within universities is inappropriate and unfair. Instead, educators must become aware of the many ways in which colonialism, racism and discrimination are perpetuated within institutionalized learning environments and seek to undo and undermine the beliefs, language, attitudes, and approaches that comprise experiences of racism. In order to be able to do this, educators must understand the role of microaggressions and other instances of structural violence. Additionally, more research on the experiences of not only students but Indigenous faculty and staff is required to better understand the many ways in which racism manifests itself, subtly or not (Clark et al, 2014).

Clark et al (2014) and Galliher and Jones (2015) both note that deep engagement with one’s Indigenous culture serves as a ‘buffer’ against the impacts of racism, which is a theme that emerged in this study as well. In our conversations, a number of Indigenous

participants spoke to the role that daily ceremonies and practices played in creating a 'protective shield' around them that enabled them to ignore the negativity. As Elder Pat Tangie shared,

When I follow through on my spiritual rituals, the negativity of the outside world doesn't seem to penetrate. What I find is that if I don't do my daily rituals, if I don't sit with myself and give thanks for this day and for all of the blessings that I have in it, if I'm not expressing my gratitude, those negative emotions can eat me up.

Therefore, the role of engaging in one's traditions and culture can be an antidote to racism. Creating spaces within educational institutions for Indigenous learners to connect with Elders and Knowledge Holders and connect with a community that reflects their own cultures and practices is important in creating safer spaces that support Indigenous learners.

Suárez-Orozco et al's (2015) article *Toxic Rain in Class: Classroom Interpersonal Microaggressions* explores the role of microaggressions in cross-cultural classroom settings. Their study involved observation of 60 post-secondary classrooms and sought to better understand how microaggressions occur, who perpetrates them, and to contribute an understanding of the frequency and type of microaggressions that are common. Their findings show that microaggressions happen frequently, are most likely to occur on campuses with the largest population of minority learners, and that they are most often delivered by educators (Suarez-Orozco et al., 2015). They also found that gendered microaggressions often occurred in tandem with other cultural or intelligence-based microaggressions and noted that "on several occasions, multiple identities were overtly targeted in the same MA" (Suarez-Orozco et al., 2015, p. 157). In finding that educators in post-secondary settings perpetrated the majority of microaggressions, the

authors identify that these microaggressions were both specific (for example, targeting a specific person in the classroom) as well as undirected with no particular victim in the classroom (Suarez-Orozco et al., 2015). In instances where microaggressions were perpetrated by students, they often targeted other students in the classroom (Suarez-Orozco et al., 2015).

These research results suggest that educators need to be trained in identifying microaggressions both so they can avoid perpetuating them, but also so they can identify when they take place in the classroom. This represents a significant leverage point in addressing systemic racism, given that “instructors were far more likely to initiate MAs than students were, reflecting power dynamics in the classroom” (Suarez-Orozco et al., 2015, p. 157). Instructors play a crucial role in determining what type of behavior or dialogue is acceptable in a classroom and setting a tone for dialogue, therefore, ensuring educators have the tools they need to avoid perpetuating racism is an important element of professional development training to emerge from this study.

Chapter Conclusion

This chapter presents the results of applying a critical theory lens to the data gathered in this study. In reviewing literature based on the terminology used by participants in this study I encountered microaggression theory, which enabled me to explore the racial and power dynamics in the data set for this study. The findings related to microaggressions in this study contribute to an emerging body of literature on microaggressions in general and experiences of Indigenous people with microaggressions more specifically. What is shared here is only a handful of the examples of microaggressions apparent in this study; my hope in sharing these stories is that

microaggressions will be further illuminated for readers. Additionally, this contributes to a growing body of research that explores and begins to identify particular experiences of Indigenous people with microaggressions in environmental collaborations in Canada.

Chapter Seven: Discussion- Articulating IESS Pedagogy

This chapter builds on chapters four, five and six by examining the insights and recommendations from participants and beginning to articulate an IESS pedagogy from their insights. To do this, I have taken the recommendations from participants in this study and also searched scholarly literature for resonance and additional detail. In some cases, participants recommended specific articles, books or authors to read and in other cases, I took key terminology from the interviews and explored literature based on those terms. Therefore, this pedagogy draws upon insights from participants and also literature.

This chapter begins by exploring the philosophical underpinnings of the IESS pedagogy that has been developed through this research with respect to approaches to teaching and learning and means of addressing racism through education such as through difficult dialogue and exploring identity. Next, this chapter presents additional approaches to teaching and learning in IESS pedagogy, such the role of dialogue, learning on the land, experiential learning, centering and supporting learners, and transformative learning.

The IESS pedagogy presented below brings together multiple educational pedagogies and philosophies, an approach that from my perspective activates the intent at the heart of IESS: to bring knowledge systems and approaches together to better understand the world around us.

Philosophical Underpinnings of an Emerging IESS Pedagogy

Scholars, educators, and researchers have been working over decades to develop the IESS concept. This work has been occurring across institutions and organizations

through the efforts of individuals who have set their minds toward thinking about how knowledge systems can come together to address environmental challenges. This dissertation is envisioned as a continuation and add-on to the work that has come before it. Specifically, formative for this work is the Master's research of Daniel Roronhiakewen Longboat (1998), *The Indigenous Environmental Studies Program: A model for learning and sharing of naturalized knowledge systems*, which became the foundation for the development of the Indigenous Environmental Studies and Sciences at Trent University. In his thesis, Roronhiakewen sets out the philosophical underpinnings and approaches of IESS; specifically, the grounding in Indigenous Knowledges and approaches as a foundation for learning in IESS and provides a detailed rationale and need for a program of this nature, which resonate with many of the insights shared by participants in this study. His model is offered as a framework to begin program design, which can then be adapted to specific territories and Indigenous Knowledge systems. This work presented in this chapter is seen as an extension of his work and others (Evering, 2017; Rich, 2011).

Approaches to teaching and learning in IESS

IESS pedagogy embraces an approach to teaching and learning that deeply engages IK, incorporates multiple lenses, and engages learners in diverse approaches to knowledge generation. In developing an IESS pedagogy this section looks to and draws from Indigenous educational approaches as explored by numerous Indigenous scholars, anti-racist/anti-oppression research and pedagogy, experiential learning theory, transformative education theory, settler studies, and the field of environmental education

in developing approaches to teaching and learning. The following section will describe these approaches in detail, with guidance for pedagogical approaches in IESS.

Addressing racism through education

An important finding in this study was the participants' experiences with racism in the workplace, generally in cross-cultural interactions, and elsewhere in their 'everyday' lives. The participants I spoke to described a range of experiences with racism, from overt attacks to subtle slights. These instances of racism highlighted the stereotypical beliefs and misconceptions that are carried by many non-Indigenous, white, and settler people. This on-going racism speaks to the need for anti-racist training across disciplines in order to illuminate racist beliefs and ways of being, improve the quality of cross-cultural interactions, and eliminate racism more broadly. This work involves confronting one's worldview and learning from other knowledge systems. Deep personal self-reflection and exploration of worldviews, knowledge systems, values and ways of being are central to the learning process of illuminating racism and uncovering settler colonialism.

Ken Montgomery (2013) has explored how to teach about racism and notes that central to this learning is "fostering both a critical consciousness and humility" among undergraduate learners (p. 1). Montgomery writes about the role of critical pedagogy in supporting learning about race issues in post-secondary contexts and connects with a central theme in this study, that of denying and hiding the racial issues and problematic power dynamics present in Canada today (Montgomery, 2013). He describes the challenges inherent in this type of learning, especially given the dominant culture's

approach of denying and hiding that racism exists in Canada today and describes some central challenges in educating about race. Montgomery (2013) writes,

An even greater challenge is to facilitate an understanding, among racialized white students especially, although not exclusively, that such power has not been accrued via egalitarian and meritocratic means and moreover, that white supremacy also procures and bestows power, privilege, unfair advantage, and benefits (p. 3).

Montgomery echoes earlier work of Sue (2004), which identifies that advantage and disadvantage are two sides of the same coin and that you cannot separate out those who are socially disadvantaged from those who then derive benefits from the subjugation of others. In other words, Montgomery (2013) writes,

It is not always difficult for racially privileged and empowered students to ‘see’ the effects of white supremacy in bodies, minds, and spirits that are beaten, broken, and tortured or in the lives of children tormented by racist name-calling, but it is frequently very difficult to help these same students ‘see’ the effects and consequences of white supremacy in the minds, bodies, cultures, occupations, homes, vacations, and bank accounts of racialized whites and in the most ordinary spaces, places, and peoples (p. 3).

Therefore, illuminating power imbalances and racial issues with members of dominant groups poses a significant challenge for educators. Montgomery (2013) suggests that when addressing racism in the classroom learners need to examine both individual as well as structural levels. In his (2013) article, *Pedagogy and Privilege: the challenges and possibilities of teaching critically about racism*, Montgomery provides approaches for engaging students in education programs on issues of race, in particular how to move beyond denial of racism and the idea that racism only exists ‘in people’s heads’ rather than within the very structures of society. He systematically describes the various denials

university learners (in this case teacher education candidates) suggest in an attempt to deny racism, noting that oftentimes, these denials contribute to a ‘racial arrogance,’ he explains,

revealed through such responses is a subtle conceit embedded in students’ own fantastical understanding of themselves as so deeply committed to principles of equity and social justice that they could not possibly be part of the problem...

These arrogating statements ignore legacies of white settler colonialism, perpetuate fantasies of Canadian goodness, and facilitate the reproduction of both a personal innocence and a presumed impenetrable morality amongst privileged teacher education candidates (Montgomery, 2013, p. 9).

This quotation clearly echoes the story from Elder Larry McDermot presented earlier in this dissertation, where he identified that people who align themselves with social justice agendas oftentimes unknowingly perpetuate racism and can more difficult to engage on the topic of racism.

After introducing students to racial issues and asking them to explore their own thinking and experiences, Montgomery (2013) moves on to examining the denials and causes of racism and also the responsibilities we have in addressing it. I encourage educators to explore this article in depth to determine if there are ways of bringing the approaches described therein into their classrooms and teaching approaches.

Montgomery’s (2013) work illuminates some of the challenges that have also been identified by other researchers with respect to teaching and learning about difficult issues, such as racism, privilege and settler colonialism. Researchers have noted the difficulty in making what is ‘invisible’ to many visible so they may begin to understand and address complex issues like systemic racism and structural violence. Sue (2004) a researcher and educator in psychology, writes,

I have come to realize that most of my colleagues are well-intentioned and truly believe in equal access and opportunity for all but have great difficulty freeing themselves from their cultural conditioning... They are, in essence, trapped in a Euro American worldview that only allows them to see the world from one perspective. To challenge that worldview as being only partially accurate, to entertain the notion that it may represent a false illusion, and to realize that it may have resulted in injustice to others make seeing an alternative reality frightening and difficult. (Sue, 2004, p. 762)

Robin DiAngelo's (2011) article, *White Fragility* reinforces the idea that white people experience significant difficulty in encountering alternative views on racial issues.

DiAngelo notes that dominant culture structures and norms insulate and protect white people from 'race-based stress' through coded language and other means, which then lowers their ability to tolerate racial stress (DiAngelo, 2011, p. 55). She provides the helpful definition of white fragility as follows,

White fragility is a state in which even a minimum amount of racial stress becomes intolerable, triggering a range of defensive moves. These moves include the outward display of emotions such as anger, fear, and guilt, and behaviors such as argumentation, silence, and leaving the stress-inducing situation. These behaviors, in turn, function to reinstate white racial equilibrium. (DiAngelo, 2011, p. 54)

In chapters five and six, the participants in this study spoke to the 'subtle' racism that was becoming more commonplace, especially in contrast to older forms of racism that were more overt. Therefore, this study indicates that addressing the racism that occurs in environmental collaboration should be a priority in IESS pedagogy.

Difficult Dialogue

Researchers support the importance of moving through difficult dialogue as part of the learning process in order to address complicated topics, especially discussions

related to racial issues (Suarez-Orozco et al., 2015; Sue, Torino, Capodilupo, Rivera, & Lin, 2009). Sue et al. (2009) define difficult dialogue as follows,

Difficult dialogues constitute classroom conversations about race that are marked by tension, anxiety, and awkwardness and involve fears of being misunderstood and/or misrepresented. They have been conceptualized as a clash of racial realities that is manifest in how Whites tell stories about race and racism and the counter narratives of persons of colour. (Derald Wing. Sue et al., 2009)

Difficult dialogues are by their nature awkward and uncomfortable and by acknowledging them as such can prepare learners to participate in them.

Given the importance that participants in this study placed upon exploring identity, race and power issues, it is helpful now to explore some of the guidance in the literature on the role of dialogue and approaches for facilitating challenging discussions. It is important to note that these difficult dialogues are also central to cross-cultural collaboration, which supports the need for professional development training that enables participants to see the role of and participate in difficult dialogue as part of the relationship building process in collaborative work.

Sue, Lin, Torino, Capodilupo and Rivera (2009) have written about the ability for difficult dialogue on race/power issues to enable people to move beyond stereotypes and promote understanding. They write, “interracial dialogue can serve as an educational tool to lessen intergroup hostilities and conflict and to foster racial harmony” (p. 184). The authors note that difficult dialogues can be seen as threatening by some, especially given the dynamics of power and privilege and that such dialogues often highlight differences in worldviews and perspectives (Sue et al. 2009). Oftentimes, these discussions can instigate strong emotional responses and involves some risk on the part of participants as they are invited to share their deep reflections and personal beliefs on race and power

dynamics (Sue et al. 2009). At the same time, “educators and social scientists believe that successful racial dialogues are necessary to reduce prejudice, increase compassion, dispel stereotypes, and promote mutual understanding and goodwill,” (p. 184). The values and attitudes reflected in the above quote resonate with the values and goals of IESS pedagogy identified in this study. Difficult dialogues present challenges to both learners and educators, yet participants in this study suggested that it is in moving through those challenges that learners can gain the ability to engage and move through dialogue while also moving away from problematic ways of relating, thinking, and being.

In order to facilitate this dialogue, it is essential for educators to be knowledgeable and aware of racial and power dynamics, Sue et al. (2009) explain,

When the instructor seemed comfortable with addressing race issues, validated feelings experienced by students of colour, legitimized a different racial reality, and exhibited good communication and facilitation skills, difficult dialogues proved a valuable learning experience. When professors were unaware of racial dynamics, appeared uncomfortable with race conversations, or ignored or dismissed race issues, the consequences could be quite devastating for students of colour. They often indicated that such an approach tended to invalidate their racial realities via additional racial microaggressions.

Sue et al. (2009) present strategies for instructors who facilitate difficult dialogues on race. They determined that not only do educators need to have racial awareness, knowledge and skills in order to facilitate such dialogue, but using a direct approach is recommended. To me, this presents a need for an educational assessment of knowledge and ability in dealing with race issues across educators, especially within IESS and the sciences. In their article, *How White Faculty Perceive and React to Difficult Dialogues on Race* Sue, Torino, Capodilupo, Rivera, and Lin (2009) suggest additional strategies for

facilitating difficult dialogue on race in post-secondary classrooms including the need to make space for emotions by acknowledging and discussing them and creating safe spaces for racial dialogues (p. 1090). In terms of educators, they suggest that self-disclosing personal challenges and fears as well as actively engaging in classroom dialogue can support learners in moving through difficult dialogue (Sue et al., 2009).

Boler and Zembylas (2003) echo the importance of emotions, they write “by closely examining emotional reactions and responses—what we call emotional stances—one begins to identify unconscious privileges as well as invisible ways in which one complies with dominant ideology” (p. 108). Therefore, encouraging self-reflection on and sharing of emotions can support students in illuminating their unseen assumptions and their role in the power dynamics at play. The authors note that a key element in this type of dialogue is willingness on the part of learners and educators to listen to and recognize the experiences of other students without judging them (Boler & Zembylas, 2003). These research findings reinforce the suggestions made by participants in this study, to honour emotions as part of the learning process in IESS and to embody a non-judgmental approach as part of the learning and collaboration process.

Ford and Malaney (2012) encourage educators to facilitate both inter and intra racial dialogues as part of efforts to address racism in post-secondary educational environments. They suggest that inter-racial dialogue is comprised of conversations with students across racial backgrounds while intra-racial dialogue brings together students of a shared racial background (Ford & Malaney, 2012). In both cases, the goal is to explore experiences with race and racism, privilege and power dynamics to forward social justice agendas within universities and with the hope that these students will take what they have

learned with them into the workplace after they graduate (Ford & Malaney, 2012). The authors suggest that having equal group representation in contexts of inter-racial dialogue is important, however this can be difficult to facilitate in a university classroom setting as educators have little control over the composition of their classrooms. Ford and Malaney (2012) suggest a four-stage model for engaging these dialogues,

While the curricula may differ slightly, depending upon the focus of the dialogue, both courses follow a four-stage pedagogical model (forming relationships; exploring differences and commonalities of experience; discussing controversial topics; building alliances), incorporate engaged learning activities and assignments... and contain foundational readings on key concepts (p. 16).

This four-stage model affirms the general approaches currently employed in IESS courses and further supports the role of engaging students in difficult and potentially uncomfortable dialogue. In the IESS courses I have participated in throughout this study common approaches included small seminar discussions, talking circle formats, time in the tipi and personal reflection assignments to deepen student experiences with difficult dialogue. Ford and Malaney (2012) reinforce the positive outcomes of engaging in difficult dialogue and identify that engaging in difficult dialogue supports learners in developing positive communication skills and personal growth while also forwarding social justice goals (p. 19). These outcomes align with the skills identified in this study, such as communication skills and patience. Additional benefits include building an understanding of internalized oppression, confronting and dispelling stereotypes, and promoting personal transformation (Ford & Malaney, 2012). The role of self-reflection is central to working through experiences with difficult dialogue and learning about race issues, which is a strong recommendation from participants in this study and an established thread throughout IESS programming.

Exploring Identity

The participants in this study have advocated that people who work cross-culturally need to ‘know themselves’ deeply in order to work effectively and respectfully in cross-cultural contexts. To me, this suggests that it is important for IESS programming to make exploration of identity an explicit goal, while at the same time practitioners already working in these contexts need to also make this a priority in order to improve their practice.

Exploring one’s identity involves examining personal beliefs and values, history, original languages, and ancestry as well as the social groups to which one currently belongs. Scholars have suggested that exploring identity is essential to decolonizing and creating just relationships between Indigenous and non-Indigenous people and that identity is central to the struggle for justice for Indigenous Nations (Cannon, 2012). As Martin Cannon (2012) writes, “we need to think of frameworks that start—not with Indigenous peoples—but with the identity-making processes, many of them racialized, that are specific to colonization and non-Indigenous Canadians” (p. 22). Identities are in flux, are complex and multiple and also offer important leverage points for change in society, as Lowman and Barker (2015) write,

to speak of identity is to speak of the point at which we make assumptions and pre-cognitive decisions. It is to speak of the part of our selves where the individual meets the society and says, “I belong here,” while internalizing important lessons for how to belong. Identities are deeply rooted, but also potential sites of change. An identity that is obscured or ignored now can also be centralized and acted on in the future. Because identities are shifting and multiple, we believe it is important to interrogate some of the common ways settler identity functions in order to very intentionally shift how we think about

ourselves and our relationships with the wider world. We use identity to refer to how people recognize other members of shared groups, how people distinguish differences in perceived “Others,” and how these complex belongings are expressed by individuals and groups in particular ways of living, discourses and narratives, and political relationships. (p. 13).

The participants in this study specifically advised that non-Indigenous people who work in these contexts need to work through an ‘unsettling’ process, where they confront Indigenous history, colonialism and settler colonialism, their own identity and implication in settler colonialism in Canada today. Scholars such as Paulette Regan (2010) and Rick Wallace (2013) offer helpful insight for how to engage in an on-going processes of unsettling.

Unsettling the Settler

In order to unsettle within a context of IESS pedagogy, it is necessary to understand how settler colonialism operates and to critique and illuminate settler identity, including the worldview, beliefs, values, and ways of being of settlers. It is important to note that as with any identity, settler identity contains both problematic elements as well as approaches and ways of being that can contribute to unsettling and decolonizing.

This focus on unsettling and acknowledging and exploring settler colonialism is reinforced by a recent special issue in the journal of environmental education research, which brings together scholars from diverse backgrounds who have articulated what they refer to as ‘land education’. Tuck, McKenzie and McCoy (2014) in their introduction to the special issue offer a strong critique of contemporary environmental education and highlight some of the problems with environmental and placed-based pedagogies, which often leave out Indigenous voices, contribute to the erasure of Indigenous Nations and reinforce settler colonialism all while purporting to be culturally or politically neutral.

Instead, Tuck et al write, “ongoing colonization of the land and peoples are in fact embedded within educators’ and researchers’ practices and understanding of (environmental) education around the globe.” (Tuck, McKenzie, & McCoy, 2014, p. 1) The authors advocate for a bridging of the fields of Indigenous studies, environmental education and settler colonial studies toward decolonization of educational approaches and learners. This is an extremely important insight, as it speaks to the ways in which education in general, and environmental education more specifically operates as an oppressive and colonial force in the lives of Indigenous people, it also asks us to create alternative approaches, which do not reproduce settler colonial ways of thinking and being, but instead, work actively to undermine and undo settler colonialism and focus on ‘Indigenous futurity’ (Tuck et al., 2014). To me, the call to action that land education asks of us reinforces the observations shared in this study that environmental practitioners and environmental organizations often operate in problematic and settler colonial ways, which impede respectful cross-cultural collaboration.

Land education, as the authors of the special issue have articulated, “emphasizes educational research that engages acute analyses of settler colonialism as a structure, a set of relations and conditions” (Tuck et al., 2014, p. 13). This focus affirms the overall approach of my research, which has been activated through the inclusion of a critical theory lens and has enabled me to ‘see’ and illuminate the settler colonial issues apparent in the contexts explored with participants in this study. This literature also reinforces the strong suggestion made by participants in this study to explore settler colonialism and oneself in relation to it as an essential pre-cursor to working cross-culturally, especially in contexts that bring together Indigenous and non-Indigenous peoples.

Colonialism and Settler Colonialism

Scholars differentiate between exploitation colonizers and settler colonizers, whereby exploitation colonizers seek labour, resources, and financial gain, but not a homeland whereas the settler colonizer seeks a new homeland and the resources of that land, which relies on the erasure of the original Indigenous Nations (Tuck, McKenzie, & McCoy 2014; Veracini 2011). Calderon (2014) notes that settler societies are built by migrant groups who fabricate their own superiority and domination over Indigenous Nations through the creation of their own self-sustaining states that are independent from their 'mother' countries.

Tuck, McKenzie and McCoy (2014) reinforce a central theme in this study, that of hiding and denying colonialism and settler colonialism. They write,

one of the notable characteristics of settler colonial states is the refusal to recognize themselves as such, requiring a continual disavowal of history, Indigenous peoples' resistance to settlement, Indigenous peoples' claims to stolen land, and how settler colonialism is indeed ongoing, not an event contained in the past. Settler colonialism is made invisible within settler societies, and uses institutional apparatuses to 'cover its tracks' (Tuck, McKenzie & McCoy, 2014, p. 7).

This theme of denying and hiding settler colonialism is apparent in this study as evidenced in chapter five, which illuminates central challenges in cross-cultural collaboration such as the continuation of colonialism, settler colonialism and the denial and hiding of these power dynamics and systems of domination. This denial and hiding has been reinforced in statements by leaders of the Canadian state, such as former Prime Minister Stephen Harper who famously asserted that Canada has no colonial history (O'Keefe, 2009). This misinformation and denial is the foundation upon which settler

colonialism rests and provides a basis for settlers to assert their sovereignty at the expense of Indigenous Nations. Tuck and Yang (2012) and Veracini (2011) note that settler identity is predicated on the belief in the settler as superior and the ‘norm’ against which all other persons are defined and understood. Calderon (2014) highlights the ways in which settler colonialism reinforces a “grammar of race and inferiority” toward the elimination of Indigenous presence on the land. Calderon explains,

In settler colonial societies, settler normativity is constructed through a set of dialectic relationships based upon circles of inclusion and exclusion in which the settler constructs himself as normative and superior vis-à-vis Indigenous and non-Indigenous others. This positioning of settlers is structurally maintained by employing a set of rules that are situated in and reify the circles of inclusion and exclusion (e.g. hypodescent and blood quantum). The core of the settler-Indigenous dialectical structure is defined by the desire to erase or assimilate Indigenous people alongside a continued symbolic Indigenous presence. (Calderon, 2014, p. 40)

This quotation speaks to the insidiousness of settler colonialism and the complexity of it as system of domination and oppression. This understanding also connects with microaggression theory as explored above and the understanding of settler colonial population economy as articulated by Lorenzo Veracini (explored in detail below). Given the focus of settler colonialism on the erasure of Indigenous presence, it is essential that IESS pedagogy works to undermine this desire. By including critiques and building understandings of settler identity, the dangerous and violent goal of Indigenous erasure can be undermined.

It is important to be explicit about the ways in which educational institutes contribute to the denial and hiding of colonialism and the erasure of Indigenous presence; in this study, the focus is on exploring environmental and science education and the ways

these fields can be transformed toward decolonizing and anti-colonial approaches rather than mindlessly reproducing settler colonialism through education. Calderon (2014) identifies that the ways settler people conceive of land is critical here, and in particular the ways that settler people try to claim land as their own. Calderon (2014) writes, “constructions of land, implicitly or explicitly as no longer Indigenous, are foundationally implicated in teaching and learning about the natural world, whether that be science education, place-based education or environmental education” (p. 39). This idea, that land is no longer Indigenous is common in reference to major cities as well as degraded landscapes or when government employees refer to ‘crown land’ instead of calling it ‘treaty land’.

These educational fields are seen as ‘sites of struggle’ because of how they often reproduce negative colonial beliefs and approaches to relating, but at the same time, this struggle provides a key leverage point in creating positive change if an unsettling approach is taken to decolonize these fields (Calderon, 2014, p. 39). These sites of struggle have also been characterized as sites of regular microaggressions such as those outlined by Clark et al (2014), which taken with Calderon’s work can now be seen as operating within a wider settler colonial project. Microaggressions are important in this context because they are another means contributing to the erasure of Indigenous peoples, such as misrepresentation in text books and course materials and perpetuation of misunderstandings about Indigenous peoples and their knowledges. Calderon’s (2014) work affirms and reinforces the importance of the approaches taken in this study to focus on and illuminate the role of settler colonialism in cross-cultural environmental collaboration as well as within the educational institutes that train learners to work cross-

culturally. Brought together with scholars in other linked fields, a richer, more detailed picture of how settler colonialism operates begins to emerge, along with methods of beginning to dismantle the approaches and beliefs of settler colonialism.

Veracini (2011) provides an extremely helpful overview of settler colonialism and identifies the ways in which settler states work to maintain their sovereignty and authority over their claimed lands, primarily through the erasure of Indigenous peoples in order to maintain control over land. He explains the settler colonial population economy as containing three central populations: settlers, Indigenous people, and exogenous others; Veracini describes in detail how, through various types of ‘transfers’ settler states work to move Indigenous and exogenous others into the settler category and further legitimize their claims to land and sovereignty, for example through the incarceration of Indigenous people or by erasing Indigenous histories (Veracini, 2011). His identification and explanation of transfers offer necessary insights into additional problematic ways of thinking that perpetuate settler colonialism and work to disappear Indigenous people and their Nations from the land in order to ease settler anxiety with respect to the legitimacy of the settler state and settler claims to land. Veracini (2011) articulates settler beliefs, values, anxieties, and approaches that perpetuate settler colonial ways of relating and by identifying these elements of settler colonial worldviews has made it easier for all of us to confront the ways in which we can participate in the dismantling settler colonialism.

This book is an essential resource for educators in IESS and practitioners in cross-cultural environmental contexts.

Illuminating Settler Identity

Settler. This word voices relationships to structures and processes in Canada today, to the histories of our peoples on this land, to Indigenous peoples, and to

our own day-to-day choices and actions. *Settler*. This word turns us toward uncomfortable realizations, difficult subjects, and potential complicity in systems of dispossession and violence. *Settler*. This word represents a tool, a way of understanding and choosing to act differently. A tool we can use to confront the fundamental problems and injustices in Canada today. *Settler*. It is analytical, personal, and uncomfortable. It can be an identity we claim or deny, but that we inevitably live and embody. It is who we are, as a people, on these lands. (Battell Lowman & Barker, 2015, p. 2)

This section will begin to describe and explore settler identity as a means of sharing with readers elements of settler identity as well as the resources available for thinking about and deconstructing settler identity toward more just relationships between Indigenous and non-Indigenous people. This section is not meant to provide an exhaustive listing of all of the work and thought on settler identity, but rather to provide a starting point for non-Indigenous readers who have yet to embark on a detailed examination of settler identity in a Canadian context. This section emerges from the call to action from the participants in this study for people who work cross-culturally to know themselves deeply and critically, in general and also within the context of on-going settler colonialism and racism in Canada.

Elements of Settler Identity

As a starting point, Battell Lowman and Barker (2015) offer that settler identity is based in place and the specific lands occupied by settlers in relation to Indigenous Nations and that both settler and Indigenous identities are always in relationship. These two identities (Indigenous and settler), while often presented as two distinct groups are actually non-discrete “in the sense that they overlap with each other and there are many people caught between Settler and Indigenous identities, and therefore subject to

conflicting social treatment based on how they are subjectively perceived and/or claimed by other Settler or Indigenous people(s),” (Battell Lowman & Barker, 2015, p. 17). It is important to note that settler identities across settler states are not uniform, although they share some similarities and roots. Battell Lowman and Barker (2015) explain that

when we say that Settler identity is process-based, we acknowledge that Settler people do not strictly identify with one codifiable set of cultural practices, political or economic institutions, embodied expressions, or even particular languages or religions. Rather, Settler people come to identify through ways of doing things—particular processes—that bind them to the lands on which they intend to stay, ways whose expression changes over time while maintaining the same assumptions and end goals. (p. 15).

This quotation shows how settler identities shift and change over time and exemplifies the importance of relationships to the land and one another in forming and maintaining identities. Key elements of settler identity relate to the intention of settlers to find a new homeland with the objective to stay there long term and to build a new society with its associated political systems (Battell Lowman & Barker, 2015; Paperson, 2014). The importance of settler colonizers in seeking a homeland was highlighted by Kyle Powys Whyte, who noted that examining this element of settler identity was deeply uncomfortable for his non-Indigenous colleagues.

Battell Lowman and Barker affirm a theme found in this study as a central element of settler identity, the on-going denial of Canada’s colonial history and a “resistance and reluctance” to acknowledge settler colonialism, denial which ultimately acts as a disavowal of Settler identity (Battell Lowman & Barker, 2015, p. 15). In turn, this creates a Settler identity that continually denies itself in order to avoid dealing with the privilege and benefits accrued from dispossessing Indigenous peoples of their lands.

Settler Canadian identity “is reliant on the ongoing exercise of colonial power to provide attachment to and legitimacy on the land” (Battell Lowman & Barker, 2015, p. 16). This denial speaks to the need to uncover and reveal the elements of settler identity so that Canadians may begin to see themselves in a different light and begin to deconstruct the ways in which settler colonialism is perpetuated toward eliminating the negative implications of this for Indigenous Nations.

Denial of colonialism and settler colonialism are central elements of settler identity, but they are also instrumental to a collective forgetting or amnesia that underscores the denial of Canadian history and the ancestral roots of settler people (Battell Lowman & Barker, 2015; Freeman, 2000; Regan, 2010). As Battell Lowman and Barker (2015) write, “a settler society is created when a newcomer people shift from identifying with distant empires and states that often founded them or from which they emigrated to identify primarily with the political constructs, goals, and society in a new homeland” (p. 27). Victoria Freeman has written about this phenomenon in her book, Distant Relations which deeply explores the implication of her family in the colonization of Canada, she writes, “I was struck by the amnesia of each generation: our family memories often went back only as far as our grandparents. They marked the vanishing point of remembered ancestry—our great-grandparents fell off the edge of the world” (p. xvii). Our forgetfulness as settlers is not only in relation to our own histories and origins, but also as is exemplified in this study, about Canadian history and relationships with Indigenous peoples. Battell Lowman and Barker (2015) explain,

Canadian ignorance of residential schools is not so much rooted in lack of education, but broad social ‘forgetting.’ Acknowledging residential schools, and the violence of settler colonialism that they were designed to administer, would

violate the peacemaker myth that underpins Settler Canadian identity. As a result, Canadians *en masse* refuse to see the schools, the systems, and their own culpability and responsibility... The wilful ignorance that buttresses settler colonial narratives and myths must also be understood as an act and a choice: an intentional forgetting of histories that are known, an intentional blindness to facts placed right in front of us (p. 46)

This collective forgetting, of our own histories and of treatment of Indigenous peoples by the settler state is a central element in settler identity and reinforces the call in this study for people to know themselves before embarking on cross-cultural work. Connerton (2008) writes about the seven types of forgetting and identifies ‘repressive erasure’ as a mode of forgetting, which enables a split from the past as well as to deny a ‘historical rupture’. In thinking through the role of repressive erasure by the Canadian state on Indigenous lands, one can see how the re-naming of Indigenous places, the removal of Indigenous peoples from their homelands, and the misrepresentation of Indigenous Knowledge, culture and history in Canadian school books are all part of a systematic repressive erasure and are key elements of the settler colonial project.

Scholars such as Paulette Regan (2010) and Battell Lowman and Barker (2015) have articulated the role that national myths play in creating settler identity and contribute to the mis-knowing of settler peoples and the erasure of Indigenous peoples from the land. These myths include “narratives of multiculturalism, peace keeping, socially progressive politics and hard-earned prosperity” (Battell Lowman & Barker, 2015, p. 44). These qualities are what draw newcomers to Canada and also “assure Canadians of our moral righteousness on the world stage and at home” (Battell Lowman & Barker, 2015, p. 44). The ethic of hard-working settlers is deeply embedded in the settler identity as Wolfe (2013) notes, “settlers generally have a lot to say about work,

sacrifice, and earning things the hard way. The refrain is familiar, the implication constant: We deserve what we have—or more pointedly: We have a right to this land” (p.1). The belief that we ‘earned’ these lands through our hard work is deeply connected to other settler beliefs, such as land as property and the productivity of lands that are ‘brought under the plough’ in contrast with ‘uncultivated land,’ which is seen as being wasted by settler society. This element of the settler belief system was highlighted by Gordon Kayahara in chapter five of this study.

Another key settler belief, that the earth is a material object, rather than a living entity is another means through which settler relationships are privileged (Calderon, 2014). Unpacking these myths and beliefs, with information about the early encounter era and treaty-making processes from early encounter to present day should be foundational elements of IESS pedagogy.

Tuck and Yang (2012) identify other central beliefs of settler colonialism, which are helpful to examine, especially as they relate to relationships between settlers and land, they write that the settler,

sees himself as holding dominion over the earth and its flora and fauna, as the anthropocentric normal, and as more developed, more human, more deserving than other groups or species. The settler is making a new ‘home’ and that home is rooted in a homesteading worldview where the wild land and wild people were made for his benefit. He can only make his identity as a settler by making the land produce, and produce excessively (p. 6).

This quotation speaks to the underlying beliefs that drive settler colonial values, attitudes and behaviours. These underlying beliefs are often additional ‘invisible’ elements that need to be explored and made visible for settlers in order to deconstruct settler identity and understand how settler colonialism continues to function, particularly with respect to

environmental degradation and the perpetuation of racism and unequal power dynamics. These beliefs about the use of resources were identified by participants in this study, particularly, Gordon Kayahara who noted that a key conflict in his cross-cultural work centered on the western belief that resources are wasted if not used, in contrast to the Indigenous belief that nature is a gift, which deserves our respect and gratitude.

Another important settler conception is evident in the above quotation that of ‘wilderness’ and the “conceptual construction of uninhabited land, a form of Indigenous absence, opens the space for settler majorities to establish their ways of knowing, doing, and being as normative and morally superior and begin attempts to indigenize settler majority identities” (Bang et al, 2014, p. 41). This belief of an empty wilderness created an opportunity for settlers to occupy and manipulate the land toward their own ends. The notion of wilderness is a key element of Canadian settler identity and continues to be perpetuated through environmental education programming, media, art, film, and other means (Korteweg & Oakley, 2014; Newbery, 2012). Constructing Indigenous lands as wilderness links to other settler beliefs, such as the separation of nature and culture and made it so that settler people could not ‘see’ the imprint of Indigenous Nations on the land. In believing that Canada consisted of vast, unpeopled wilderness, the removal and erasure of Indigenous Nations was made invisible to settler society.

Bang et al. (2014) explore the differences in conceptions of the natural world from Indigenous and settler perspectives and note that settler colonial societies see this relationship primarily as relations to property, whereas Indigenous societies see this relationships as a relative and teacher. At the heart of these different ways of viewing the land from a settler perspective is the belief that land is a material object in contrast to the

Indigenous belief that land and all the beings of creation are animate and relatives (Bang et al, 2014, p. 46). Exploring these beliefs illuminate the different ways in which Indigenous and non-Indigenous societies and worldviews conceive of their relationships to the natural world.

La Paperson reveals additional elements of settler ideas about the land, in particular, “the duality of land as desecrated, in pain, in need of rescue; and land as sacred, wild, and preserve-able” as contemporary discourses that justify the “re-invasion” of Indigenous lands by non-Indigenous people (Paperson, 2014, p. 117). A central irony in this context is that the causes of environmental destruction—colonialism and settler colonialism and associated resource extraction—are seen as the system that contains the knowledge and ability to heal the earth. This element of settler identity exemplifies what Bang et al. (2014) refer to as a binary logic which often takes the form of ‘virtuous settler’ and ‘dysfunctional native’ or the historicized ‘Ecological Indian,’(p. 41). Viewing the environment and environmental destruction in this way further erases colonial/settler colonial history by ignoring that Indigenous lifeways, food systems, and traditional lands have been occupied by and destroyed by settlers, which is another transfer identified by Veracini (Veracini, 2010).

To me, this also underscores what I often hear in cross-cultural collaboration, which are moves by settler scientists and politicians to obtain IK in order to improve their own understanding of the environment and forward their own agendas and projects. This is often a situation where IK is validated by WK and where settlers dictate what is relevant and important.

La Paperson identifies elements of settler environmentalism and how despite what may be seen as good intentions (to heal/repair the land) that this work is often done in ways, which contribute to settler colonial goals. La Paperson clarifies,

antiracist, feminist, and environmental justice work are not automatically the opposite of settler colonialism. Decolonization might be incommensurable with projects more generally thought of as social justice...Greening the ghetto can mask a neoliberal curriculum of whitening the ghetto with 'better educated,' ecologically 'responsible,' global citizens. More radical environmentalisms can also uphold the settler fantasy of sacred 'wilderness' – another form of unpeopled land – that must be restored or preserved. Even the progressive concept of land as commons to be occupied, collectively shared and stewarded, may require the negation of Indigenous sovereignty (Paperson, 2014, p. 121).

This quotation echoes a sentiment shared by one of the non-Indigenous participants in this study as they came to realize that their environmental work, despite having lofty ideals and good intentions, was actually problematic and harmful in a number of ways. Coming to realize that the efforts of settler environmentalists to 'heal' the environment can perpetuate settler colonial violence is an important element of self-reflection and a key component of exploring settler identities in IESS pedagogy.

Modes of perpetuating settler colonialism

Calderon (2016) identifies elements of settler colonialism that serve to perpetuate, build, and enhance settler identity and the superiority and domination of settlers through the deep analysis and critique of social studies textbooks. The first element of settler identity that she explores is settler nationalism, which involves the acquisition of Indigenous territories and the subsequent Indigenizing of the settler population to those territories, so that settlers may become 'Indigenous' to the places they settle (Calderon, 2016 p. 30). This process is evidenced by non-Indigenous people who refer to

themselves as ‘Native New Yorkers’ for example, and resonates with the work of Veracini (2011) who notes that when settlers seek to become native to a place, they move to ‘transfer’ original Indigenous inhabitants off the land so that settlers can become the people Indigenous to that place.

Calderon (2016) also identifies white supremacy and territoriality as a second central element of settler identity construction. Calderon (2016) explains that white supremacy underpins settler nationalism and incorporates

aspects of territoriality that rely on ideas of cultural and biological settler superiority. As a white supremacist ideology perpetuated within settler societies, it was (and continues to be) used to affirm the idea that the new settler societies were superior to the ‘old societies’ settlers left behind in Europe. This racialized ideology informs the belief that settler expansion is thus, in some sense, ‘inevitable’ and ‘necessary’, in order for the flourishing of this newly created morally, culturally, politically, and economically superior society. (p. 31).

There are clear connections between this quotation and the work of scholars who have begun to articulate microaggressions theory, which was described in the previous chapter and illuminates that white supremacy underpins the perpetuation of often invisible microaggressions, which operate to uphold systems of power and domination. These discourses of ‘inevitability’ are also bolstered by the use of the Papal Bulls, the Doctrine of Discovery and the idea of Manifest Destiny in the United States to justify the violent removal of Indigenous Nations to make way for settlers. In Canada, the creation of the Indian Act promoted settler expansion and seizure of Indigenous lands while creating a legal system of settler control over Indigenous Nations.

Bringing critiques of settler colonialism into education

Engaging with and exploring settler colonialism has emerged as a foundational element of learning within IESS pedagogy. This speaks to the importance that participants in this study placed upon the need for people to ‘know themselves’ deeply with respect to their positionality, history, beliefs and so on. Calderon (2016) writes about how this knowledge can be used to bolster student understanding and contribute to overall decolonizing,

Understanding that the chief impetus of historical wrongs was, for example, territorial acquisition, allows students to understand that the place or land they inhabit was illegally and violently taken. By working back, students and teachers can begin moving towards decolonizing understandings of community and to think about what non-colonial relations might look like both in theory and practice... This means not only understanding themselves in the present and future of place, but also the past and how all three shape who they are today and where they dwell (p. 28).

Paulette Regan’s (2010) work in articulating an unsettling pedagogy of history and hope is also relevant here with many useful approaches for exploring settler identity and colonial history in Canada in both formal and informal contexts. Regan notes that exploring ‘disturbing questions’ about settler identity and history can be uncomfortable, but that it is necessary to unveil the hidden truths about Canadian society (Regan, 2010, p. 21). The role of discomfort in catalyzing transformative learning experiences will be explored in more depth below in the section on transformative education, but here it is important to note that discomfort is central to the pedagogy along with a need to link knowledge and critical reflection in the learning process. Regan’s (2010) unsettling approach affirms many of the approaches already central to IESS pedagogy and

approaches that were also identified in this research. Her work provides key resources for working through myths and uncovering settler identity with non-Indigenous learners.

Binaries and dichotomies

The role of dichotomous thinking within settler consciousness stems from western scientific approaches to understanding and making meaning in the world and often presents an over-simplification of the world around us. This element was touched upon above in relation to the false dichotomy between settler and Indigenous identities. These dichotomies stem from the early European scientist and philosopher, Descartes, after whom Cartesian Dualisms are named. Descartes asserted that simple dichotomies characterize human experience, such as, mind/matter, subject/object, observer/observed, male/female, mental/physical, good/evil, and logical/emotional and have become foundational (and often invisible) ways of understanding the world from a western science perspective (Magee, 1998). Yet, in learning from Indigenous Knowledge systems, it becomes evident that such dichotomies exist on a spectrum and that by envisioning something, for example, gender, as a simple dichotomy inevitably leaves out experiences and people who do not conform to simple male/female identities. In this way, we can begin to see how settler beliefs serve to reinforce what is seen as ‘normal’ and therefore what becomes superior or idealized in society

Participants in this study identified that this simplistic way of looking at the world creates problematic interactions in cross-cultural collaboration and also leads to misunderstanding on the part of those who subscribe to this simplified view of the world. A central theme in the discussions with interview participants in this study involved exploring the idea of the false dichotomy of Indigenous-non-Indigenous as identities.

This is mirrored by the work of scholars, such as Leroy Little Bear (2009), who has written about how colonization has created a situation where there is no one ‘pure’ worldview and the ideas shared by Battell Lowman and Barker above. Seeing identity as a simple dichotomy between Indigenous and non-Indigenous ignores that many people have mixed ancestries and histories. At the same time, participants in this study were reluctant to simply ‘drop the labels’ in the context of on-going settler colonialism and the need to decolonize settlers. Participants in this research spoke to the potential danger in collapsing the dichotomy between Indigenous and non-Indigenous identities. To me, this speaks to the importance of language and the need to develop new ways of discussing and describing the world around us to encourage and embrace the complexity and complication in our experiences.

Exploring Indigenous identities is also important work to be included in IESS pedagogy, however many Indigenous scholars have contributed to what it means to be Anishinaabeg, Haudenosaunee or from any given Indigenous Nation within scholarly literature and their own cultural contexts. Examining Indigenous identities should be done with learners and also with the Nations on whose territory practitioners and educational institutions reside and therefore will be different depending on the place where IESS pedagogy is activated. Exploring Indigenous identities should be done in respectful and ethical ways as described throughout this study.

Dialogue Driven

The role of dialogue in student learning and in moving through difficult topics has been explored throughout this study and extensively with respect to difficult dialogue above in this chapter. In my experience with IESS, courses often include facilitated

dialogue in the format of talking circles, informal discussions, debates, or games, which create time and space for students to explore their own perspectives in relation to others through carefully facilitated discussion. Beyond engaging in difficult dialogue, facilitating small group discussion as well as seminar conversations are essential tools in IESS programming.

Dialogue offers another opportunity to disrupt the conventional academic hierarchy between educators and learners and therefore to dismantle colonial ways of being in post-secondary institutions. Dialogue enables everyone to share their own knowledge and experiences in relation to course topics. Through various approaches, students learn to see themselves and their peers as key sources of knowledge and insight, beyond professors, teaching assistants, and academic literature. This can make space for multiple ways of knowing and introduce students to a plurality of perspectives while deepening their understanding of the topic at hand.

An important method of dialogue and sharing within IESS is the role of oral teachings and storytelling (Longboat, 1998). Many IESS courses include expectations that learners are engaging with Traditional Teachings through events organized by the First Peoples House of Learning, visiting Elders, guest speakers and course lecturers who share traditional stories as core elements of curriculum. These methods enable students to build their active listening skills while introducing them to multiple knowledge systems and sources of knowledge.

The role of dialogue is also central in supporting students in developing their ability to cultivate and practice empathy and compassion. In learning to truly listen to other perspectives and experiences without judging or thinking about a response, students

can begin to understand the experiences of others. Engaging in dialogue creates space for learners to develop the communication skills recommended in this study, with respect to group facilitation as well as becoming more comfortable in sharing their own thoughts and experiences. Dialogue also creates opportunities for learners to develop the capacity to sit with discomfort as part of the learning process. The stories and ideas shared through dialogue can then be a point of reference for self-reflection and learning, which can deepen students' engagement with course topics.

Learning on the land

Indigenous pedagogies and approaches to education have been well articulated within the literature by scholars such as Gregory Cajete, Margaret Noori, Daniel Roronhiake:wen Longboat, Robin Kimmerer and others. These scholars have identified that relationship to and time on the land is central to teaching and learning within Indigenous educational systems. Participants in this study suggested that time on the land was important, especially at the outset of to build relationships. Within western environmental education literature, the importance of nature-based, outdoor education and building a connection to nature has also been identified as essential to effective environmental education. Therefore, IESS pedagogy ought to make time and space for students to engage in experiential learning on the land as a central approach in the learning process. This can present challenges within formal academic contexts depending on the location of the institution and resources available for facilitating access to the natural environment.

Scholars, such as Tuck, Mckenzie and McCoy (2014) have advocated for an approach, which acknowledges colonialism and settler colonialism as a key element of

‘land education’ in their recent special issue of the *Environmental Education Research* journal. Land education, in their view, must include critiques of settler colonialism and illuminate the impacts of settler colonialism on the land and Indigenous Knowledges, practices and lifeways. Including these elements in land-based education can contribute to decolonizing and addressing power dynamics.

IESS at Trent University is well situated to be able to create opportunities for land-based learning, given that the campus is located out of town and has many nature preserve areas that are easily accessible from almost anywhere on campus. Trent University also has a sacred space, which includes a tipi and other ceremonial areas that can be utilized by classes, workshops, and seminars. Oftentimes, hands-on learning is facilitated through workshops and activities that take place outside of formal courses, for example, corn lying, wild ricing, maple syrup making, and other seasonal activities that are open to students to participate in. In many IESS courses, there is an attempt to offer opportunities for students to learn on the land throughout the course. In these contexts, students begin to cultivate a relationship with the land and to see that land and creation can be a teacher alongside their peers and instructors. These elements provide essential lived experiences where teachings come alive for learners.

For educators who do not have ready access to such spaces coordinating these types of learning experiences on the land can be more onerous, however the benefits to the learner indicate the importance of including such excursions regularly. Developing formal relationships with First Nation communities, nature centers and preserves, and other people/organizations that can support facilitating on-the-land experiences can be one way of overcoming lack of space for learning on the land. Participants in this study

suggested annual field camps, camping trips, seasonal trapping and other activities can also support the inclusion of on-the-land learning. Leaving the four walls of the classroom for the diverse ecosystems in the vicinity also supports an approach to engaging with Indigenous Knowledges that maintains the integrity of the knowledge system through emphasizing the importance of relationship to land and engaging in the seasonality of nature's cycles.

Experiential education

With respect to experiential learning one of the participants in this study suggested I read and explore the work of Carl Rogers, who articulated the need, approaches and benefits of experiential learning in his (1969) book, Freedom to Learn: a view of what education might become. Rogers (1969) suggests that experiential learning should be learner initiated and he recommends meeting with learners at the outset of a course to identify their learning needs and interests and to create assignments and methods of evaluation along with each learner. Rogers suggests that such 'self-reliant learning' is more meaningful and engaging for learners and can encourage students to develop their creativity and problem-solving skills. Rogers (1969) notes that traditional university courses aim to 'elicit' specific responses from students through various means (lectures, readings, etc.) and refers to this as a mug and jug approach where the educator is seen as the source of knowledge and information and the student an empty vessel to be filled (p. 35). Instead, Rogers (1969) advocates for educators to create opportunity for students to choose their own approaches and methods of learning as well as their areas of interest.

In IESS pedagogy this can be facilitated in a number of ways, for example, offering students choice between various types of assignments in courses and creating open assignments that ask students to pick the topics they wish to explore in their work, rather than dictating the topics and themes for them. In upper years, offering students the opportunity to define a community-based project that is carried out either individually or in a group is another option. In promoting this type of teaching and learning, students take responsibility for their learning and engage with content for their personal growth and development instead of in the pursuit of grades (Rogers, 1969).

This philosophy of experiential education reinforces recommendations in this study, such as centring learners and their needs at the heart of IESS programming. For me, this also speaks to the medicine wheel/circle teachings that participants suggested, which create space for the spiritual, emotional, intellectual, and physical elements of each student as part of the educational process.

Bringing Knowledges Together

The notion of ‘bringing knowledges together’ was introduced in chapter two of this dissertation. As I have moved through this research I have come across additional approaches and ideas about bringing knowledges together, which are helpful to include here. The idea behind the phrase bringing knowledges together is to conceive of a means of knowledge exchange that emphasizes the origins of knowledge and ensures that knowledge systems remain intact. This is of critical importance given the assessment above about the ways in which settler colonialism often works to appropriate knowledge and erase Indigenous peoples from Canadian consciousness. Therefore, when we work to bring together Indigenous Knowledge with Western science it is important to be explicit

about where knowledge originates and to ensure that the integrity of knowledge systems is maintained.

Kimmerer (2012) suggests that a helpful starting point in bringing knowledge systems together is to explicitly explore the knowledge systems that learners will be engaging with and to identify and examine the worldviews from which the knowledge systems originate. This means, that before students are actively learning from a given knowledge system, that they understand the parameters of knowledge within that system, the common approaches to sharing and validating knowledge from within that system and so on (Kimmerer, 2012). Once students have an understanding that knowledge is linked to cultural contexts and a wider worldview, they can begin to engage with that system in culturally appropriate ways.

Sylvia Moore (2012) writes about the need for practitioners to be open to alternative sources of knowledge/information, outside of one's knowledge system in order to be able to weave knowledges or bring them together. Moore (2012) explains,

where Indigenous and Eurocentric/Western world views come together, I realize there are no recipes, no rules, no step-by-step directions in the work to bring these two knowledge systems together... Relationships are fundamental to this work because it is through relationships that we have knowledge. (p. 329).

Moore (2012) suggests that the centrality of relationships to this work enables learners to build 'relational skills' such as having humility and a sense of humour. This affirms recommendations by participants in this study and suggests means for developing student capacities in these areas. In this model, students are not separated from the process, instead, they are engaged with Knowledge Holders and Elders as part of the learning process, ideally through direct relationship. This is where having faculty and staff that

embody multiple knowledge systems and worldviews can create a space for learners to begin their own process of bringing knowledge together in their making sense of the world and the courses/topics being explored in the classroom.

The role of bringing knowledge together in supporting learners to cultivate humility is further supported by Bartlett, Marshall and Marshall (2012) who suggest that bringing knowledges together offer an opportunity to experience and practice humility. However, they also caution that there is a tendency “for the mainstream to assign IK holders a role akin to Hollywood Indians whereby someone else writes your script or relegates you to entertainment status” (Bartlett, Marshall, & Marshall, 2012, p. 334). To me, this speaks to the need for deep relationships and engagement in a way that supports IK holders in a process of knowledge exchange that is on their terms from development of curriculum to delivery of programs. Therefore, there is a strong need for significant ‘up front’ work in building relationships and setting parameters for engagement and co-developing curriculum with educational partners to ensure knowledge is not appropriated and IK holders are respected throughout the process of knowledge sharing. At the same time, there is a need to be nimble in working with multiple knowledges and being open to adapting to changes as circumstances shift. As Bartlett, Marshall and Marshall (2012) write “we need to learn to weave back and forth between our knowledges because in a particular set of circumstances, it may be that one has more applicable strengths than the other, yet with changing circumstances this can easily switch” (p. 335).

This relates to the idea of cognitive flexibility, which was first explored in chapter two in terms of challenges in developing and delivering IESS pedagogies. To me, cognitive flexibility is enabled when students are aware of the knowledge systems with

which they are engaging, how to use the information they are encountering within those knowledge systems, and are able to utilize the appropriate ethical protocols in engaging with knowledge systems. From my understanding, cognitive flexibility means that learners are able to identify specific knowledge systems and to engage with those knowledge systems in ethical and productive ways.

In an IESS context at Trent University, the knowledge systems most commonly encountered are Haudenosaunee, Anishinaabeg and western knowledges and the knowledge systems brought by the students (the nearby communities are from the Michi Sagig Nishnaabeg Nation and include Curve Lake First Nation, Alderville First Nation and Hiawatha First Nation and people from these communities have been involved in curriculum development and as visiting Elders and lecturers). Through additional visiting scholars, Elders, videos, podcasts, and course readings other knowledge systems are encountered. In this way, students first gain competency with the knowledge systems of the Nations from the territory in which they are situated and then other knowledge systems. They begin to see elements that are shared as well as similarities and differences between knowledge systems (Kimmerer, 2012). Once knowledge systems are identified and understood, learners then begin to encounter the tools (for example, story in various forms, metaphor, dreams, treaty, prophecy, observation, digital media, poetry, song, measurement, comparison, ceremony) available for understanding and addressing environmental challenges.

Robin Kimmerer (2012) discusses the role of ‘intellectual pluralism’ in thinking through knowledge exchange between Indigenous and western science in the academy. She explains that intellectual pluralism enables “respectful consideration of other ways of

framing, and addressing a question which is an essential skill in an increasingly globalized economy” (Kimmerer, 2012, p.319). To me, the concepts of intellectual pluralism and cognitive flexibility are related and mutually reinforcing. Aikenhead and Jegede (1999) have also written about the role of flexibility and playfulness as one interacts with a new knowledge system. They suggest that playfulness increases one’s ability to be flexible and their openness by “reducing the perceived psychological risks associated with participating in another culture” (Aikenhead & Jegede, 1999, p. 273). This playfulness should not be misconstrued as carelessness, but rather as an ability to participate in “another world” without losing one’s central identity (Aikenhead & Jegede, 1999). As one develops cognitive flexibility and the ability to identify and understand multiple knowledge systems, they will also begin to see multiple ways of framing and thinking about the same issue and to determine the richness and detail that exploring challenges from multiple perspectives can bring to addressing environmental challenges.

In Indigenous Knowledge systems, the acquisition of knowledge is inextricably linked to the responsibilities that come with what has been learned (Kimmerer, 2012). This means that a central element of bringing Indigenous and western knowledge systems together is understanding and fulfilling the responsibilities to the knowledge as part of the learning process. Responsibilities to knowledge include using knowledge appropriately (as it was intended by those who have shared it) and ensuring that Traditional Knowledge is protected (Kimmerer, 2012). As Kimmerer explains,

I emphasize to my students that aspects of Traditional Knowledge are the privileged and protected intellectual property of indigenous peoples. Students should understand the limits and concerns to knowledge sharing, longstanding protocols for knowledge dissemination, and the dangers of cultural appropriation.

Teaching the ethics of knowledge integration must be coupled with respectful exploring of TEK in support of sustainability. (Kimmerer, 2012, p. 319)

The focus on responsibilities to knowledge is an important distinction between Indigenous and western knowledge systems where in a western context “knowledge for knowledge’s sake” is generally accepted as a value, whereas within Indigenous Knowledge systems relationships to knowledge, including the purpose behind using and accessing knowledge, as well as the importance of protecting that Knowledge is central (Kimmerer, 2012).

Therefore, a key element of IESS teaching/learning should involve dialogue around what knowledges are accessed through course work and in collaboration with Elders and Knowledge Holders, determining how knowledge shall be used and protected by students. Responsibilities to knowledge can also involve ensuring the genealogy of knowledge is protected and perpetuated, whereby teachers, Elders, and Knowledge Holders are expressly identified along with the knowledge.

Kimmerer (2012) also highlights the role of time on land in exploring the worldviews that underpin Indigenous and western knowledge. She writes, “teaching on the land softens the dichotomy we have created between SEK and TEK, as direct experience reveals in short order that knowledge belongs neither to SEK or TEK, but to the land. The land is the knowledge source.” (Kimmerer, 2012, p. 321) Therefore, a central approach to IESS pedagogy, learning on the land, is further emphasized for the role these experiences can play in fostering learners’ understanding about the world, about knowledge systems and the origins of knowledge.

It is important to note that it takes considerable time and resources to develop and maintain respectful relationships across knowledge systems. Bringing knowledge

systems together requires knowing and following cultural protocols, being open to being wrong and learning new ways of relating, and being explicit about knowledge systems, rather than vague or general. As we have seen through the critical theory analysis put forward in this dissertation, relating to knowledge systems in a general way can be described as a microaggression against Indigenous people. The microaggression lies in the vagueness, which leads to misrepresentation of Indigenous Nations and the erasure of the specific Indigenous Nations and their history. Overall this perpetuates a colonial approach to knowledge sharing where western knowledge systems dominate IK and other knowledge systems (Smith, 1999).

In contrast, working closely with those Nations whose territory the learning institution is situated upon is imperative and enables people to work together in co-developing an approach to knowledge sharing that is respectful and ethical.

Centering and supporting learners

Creating educational curricula that put the learner at the center are foundational within IESS. This is closely related to disrupting hierarchies, as discussed above, but also relates to overall program design, the processes for teaching and learning, and how to engage learners within IESS learning contexts. The underlying philosophy sees learners as unique, with their own gifts and role to fulfill. Participants in this study echoed this thinking, which can be seen in quotes shared in chapters four and five, particularly comments shared by participant Sue Chiblow who noted that each person has their own gifts and contributions to make, but that university programming often attempts to provide all learners with the same set of competencies.

This focus on the uniqueness of each learner is a central element of post-secondary IESS programming, which should offer students opportunities to explore and discern one's own gifts and then pursue the courses, research, and direction that makes most sense to them, rather than creating a program where everyone is assumed to have the exact same set of skills and capacities upon graduation. This also speaks to the dynamism of cross-cultural environmental contexts and the need for multiple and diverse roles to facilitate respectful cross-cultural collaboration.

Centering learner interests, gifts, and strengths were also seen as a foundational element at TRACKS as shared by Robyn Smith in our interview. Robyn explained that at TRACKS they honour a process to learning where instructors' ability to be flexible and adaptable to students' needs was paramount to effectiveness their programming. Staff are trained to be responsive and are comprised of a diverse team of educators, volunteers and others, who are able to support learners in following their curiosity and interest. Putting the learner at the center is a powerful means of disrupting hierarchies and working to dismantle colonialism in educational settings. At a time where there is a growing focus on developing and achieving specific learning outcomes in Canadian educational contexts, and linking those outcomes to job markets and the economy, putting students at the center becomes one means to struggle against the homogenization of learning. These themes also link with the approach to experiential learning that has been advocated in this chapter and align well with the overall IESS philosophy and set of values articulated in this study.

With respect to supporting students throughout their learning journey, the IESS program creates opportunities for students to further explore their interests, build

relationships with one another, and deepen their learning. Informal events such as feasts at the start and end of term, a variety of workshops and activities in the wider Trent and Peterborough communities, and IESS specific conferences. The Indigenous Studies department offers additional events, teachings, and opportunities for students engaged in the discipline, which further students' opportunities for self-discovery and learning. Through their courses, assignments and community involvement, students cultivate an understanding of their gifts, strengths, weaknesses, "self" interests, values, and their overall self-awareness. IESS also offers courses where students are able to develop their own reading plan and research project to further explore and develop their research interests and abilities.

The courses suggested in the next chapter further deepen these student-centered approaches to teaching and learning in IESS by including a focus on problem-based learning, where students work individually or collectively to identify a concern/interest/problem to address through their projects and assignments in the course.

Transformative learning

Student transformation is at the heart of educational programming and design in IESS pedagogy. Given the uniqueness of each student and the diverse student body in IESS courses, the ways in which students are transformed varies. However, there are some essential starting points, which have been alluded to throughout this dissertation and were clearly identified by participants in this study. These areas include, developing greater awareness and self-awareness with respect to worldviews and knowledge systems (the students' own, as well as others); developing an understanding that western science approaches and values are embedded in cultural contexts and understanding the beliefs,

values, and implications of western knowledge systems; cultivating a deeper relationship to the natural world, where nature is seen as a teacher and relationships are characterized by reciprocity and gratitude; coming to understand the on-going legacy of colonialism and settler colonialism and their roles in supporting and/or creating change in systems of oppression; and coming to understand the interconnectedness of the world and behaving in a manner that supports the well-being and functioning of all beings and life systems.

In IESS at Trent, students engage in this learning journey over three or four years, which provides ample time to set learning foundations and engage students in a process of transformation and change. For those who seek to apply IESS pedagogical principles outside of traditional academic contexts, cultivating learner transformation can still be achieved, but needs to be engaged somewhat differently and these elements will be explored in the section of this chapter on professional development training. For the discussion here, it is sufficient to explore more broadly the themes and goals of learner transformation in IESS pedagogy. Moreover, there are additional benefits to engaging in transformative education approaches, which will also be explored in this section.

Transformative learning theory articulates many of the goals at the heart of IESS pedagogy. Edward W. Taylor (2009) illuminates that fostering transformative education involves many of the elements, which IESS pedagogy seeks to engage with learners, such as, teaching for change, challenging problematic ideas, assessing student's value system and worldview, critically assessing underlying assumptions, discussion/dialogue as a form of exploration, and decision-making through consensus. Taylor (2009) articulates components of transformative education, which are helpful and instructive to examine in this context as much is applicable and utilized within IESS pedagogy. The essential

components are individual experience, critical reflection, dialogue, holistic orientation, awareness of context, and authentic practice (Taylor, 2009). From here I would like to explore each of these components in greater detail, to emphasize the synergy between IESS pedagogy and transformative learning theory as well as draw on additional insights for consideration in developing/implementing IESS pedagogy. It is important to note, that from my perspective these components are not distinct, but rather overlap and reinforce one another.

Individual experience is identified as a central element of transformative learning theory, which engages the learner in a critical examination of their assumptions, experiences (previous and in the classroom) through dialogue and self-reflection (Taylor, 2009). Engaging with the individual also fosters relationships between the educator and student, which can support the educator in identifying ‘pedagogical entry points’ for engaging the learner more deeply (Taylor, 2009). Experiences in the classroom and through dialogue with one another students can deeply engage their whole person to understand who they are and to begin to mindfully shift their values, beliefs and approaches in response to what they are learning.

Critical reflection is the next element, which involves students questioning their deeply held beliefs and assumptions and can be explored through conflicting thoughts, feelings and actions that arise in response to what they encounter through the program. Engaging at this level is seen as contributing to ‘perspective transformation’, which can involve students shifting their perceptions of the world around them. Three types of critical reflection are identified by Taylor (2009) including, content (reflecting on what we perceive, think, feel, and do), process (reflecting on how we perform the functions of

perceiving for example what we see and don't see) and premise (an awareness of why we perceive—examining the presuppositions underlying our knowledge of the world) (p. 8).

Taylor (2009) recommends using writing assignments as a central process in critical reflection, he suggests, “writing provides a means for both reflecting and recording previous thoughts that can be shared with others and returned to and reflected on when most relevant” (p. 9). This approach reinforces insight from educator Lynne Davis in this study, who noted that weekly written reflections were an important part of her teaching practice.

Lisa Hart (2011) reinforces the importance of self-reflection in personal transformation and argues that “transformation can only occur when we challenge existing norms and the status quo in order to allow for the contemplative self to arise where we can make sense of our world” (p.44). The link between critical reflection and critical thinking is illuminated by Hart (2011) who suggests that transformative education empowers students to find their “inner voice” and power, she writes “it provides students with the tools and strategies to critically deconstruct the information that is being taught and to offer alternative ways of knowing” (p. 37). Critical reflection was once seen by western academics as a primarily rational activity, whereas research is beginning to show it is characterized by affective ways of knowing, which further supports the need to honour emotions in IESS pedagogy.

Critical reflection, dialogue and transformative education more broadly have been identified as helpful approaches in engaging with race and power issues (Hart, 2011; Taylor, 2009). Given the call in this study to uncover and address racism at multiple levels this suggests that transformative education approaches can support this goal as

well. As Hart (2011) notes, transformative education “provides students with the opportunity to reflect on their ideas, assumptions and beliefs which raise their consciousness while increasing their awareness of biases, prejudices and stereotypes which in turn inform their actions,” (p. 38). In engaging ideas, assumptions and beliefs, students activate the critical reflection central to personal transformation, while becoming more aware of their role in the systems of oppression, which operate in wider society. This is where reflecting upon one’s positionality is also critically important and can support learners in beginning to engage with the critical self-assessment transformative learning asks of them.

The role of dialogue, with both oneself and others, is another central component in transformative learning theory. Dialogue is already a core component of IESS pedagogy, which suggests that IESS pedagogy is transformative in nature. Engaging in dialogue is seen as a skill, which can be fostered and improved upon and is noted by Taylor (2009) as “the essential medium through which transformation is promoted and developed” (p.9). Dialogue is used to explore learner thinking, understanding, actions, truth and authenticity, “Dialogue becomes the medium for self-reflection to be put into action, where experience is reflected on, assumptions and beliefs are questioned, and habits of mind are ultimately transformed” (Taylor, 2009, p. 9).

In facilitating seminars in IESS at Trent, we often begin with a talking circle format in which students are free to share their thoughts, explore course content and ideas, ask questions of one another and so on. The role of dialogue in engaging students in their learning journey cannot be underestimated and is emphasized by the importance students place upon the talking circles that are facilitated in class. In my experience, it is

common for students to share that they feel these opportunities for dialogue are important yet rare for them in their university learning and they appreciate having the time and space to work through ideas with one another. Taylor (2009) identifies key values and approaches to engaging learners in processes of dialogue, which include encouraging openness to different points of view, emphasizing honesty and trusting relationships, freedom to share openly and only when students wish to, and cultivating empathy and compassion in listening to others. Dialogue is an opportunity for students and instructors to build relationships with one another and to cultivate the values advocated for by the participants in this study such as empathy, patience as well as skills such as active listening and people skills. Taylor (2009) acknowledges that such dialogue is not always comfortable, but that discomfort is a sign that learning is taking place.

Taylor (2009) describes the role of having what he refers to as an ‘holistic orientation’ within a transformative education framework. He suggests that students need to encounter other ways of knowing in relational ways, in order to facilitate their own self-reflection and self-awareness. Taylor (2009) notes “learners rarely change through a rational process (analyze-think-change). Instead they are more likely to change in a see-feel-change sequence” (p. 11). This suggests that emotions are central to the learning and transformation process, which underscores another recommendation from participants in this study to honour emotions as an essential part of learning. Taylor (2009) writes, “affective knowing—developing an awareness of feelings and emotions in the reflective process—is inherent in critical reflection” (p. 11). Emotions often trigger the reflective process and create space for students to think about their emotive responses to what they are encountering throughout the learning process. Opportunities for learners to engage

with music, art, story, metaphor, and writing as part of the learning journey can support them in identifying and working through emotions and sharing those reflections with one another.

Hart (2011) also advocates for an holistic approach to transformative learning that embraces the ‘whole’ learner and their heart, body and soul as part of the learning process. This affirms recommendations put forward by participants in this research, many of whom suggested working with the medicine wheel as an approach to relating to students and one another. Briefly, the medicine wheel creates space for the intellectual, physical, emotional and spiritual components within educational contexts and I encourage readers to engage with Anishinaabeg Knowledge Holders and scholars to learn more about the medicine wheel philosophy and how it can be engaged across learning contexts. As stated in the introduction to this dissertation, scholars and educators have been advocating for more holistic approaches to teaching and learning in environmental contexts to make space for the emotions, grief, and spiritual support needed to deeply engage in environmental challenges.

Context is another critical component in transformative learning theory. Context with respect to where the learning takes place, learners’ prior experiences, the background contexts that are shaping society and so on. An important element of context is the timeframes in which learners are engaged. Research suggests transformative learning is time consuming, especially when group processes are inclusive and consensus driven and that “working with rigid time periods poses additional challenges when engaging intense personal experiences that cannot be resolved by the time class is over” (Taylor, 2009 p. 13). Therefore, there is a need to engage students in activities out of

class (for example written reflection assignments) and to create a wider community, which engages learners between and in addition to courses.

Authentic practice is the final component Taylor (2009) identifies as central to transformative learning theory. Fostering authentic relationships within the learning community is key here and Taylor (2009) notes,

research has found that establishing positive and productive relationships with others is one of the essential factors in a transformative experience. It is through building trusting relationships that learners develop the confidence to deal with learning on an affective level, where transformation at times can be perceived as threatening and an emotionally charged experience (p. 13)

This reinforces the recommendations by participants in this study that supportive relationships are essential for people as they work and learn cross-culturally. Fostering relationships between instructors and students and between students themselves as well as creating time and space for learners to cultivate relationships in the wider community is crucial in engaging a transformative learning process. These relationships become sources of strength for learners/practitioners as well as tangible supports in working through the difficulties of personal transformation, learning and engaging cross-culturally.

Relationship, a central value in IESS pedagogy is affirmed as a key component of learner transformation. As Taylor (2009) writes,

Authentic relationships also allow individuals to have questioning discussions, share information openly, and achieve greater mutual and consensual understanding. Without the medium of relationships, critical reflection is impotent and hollow, lacking the genuine discourse necessary for thoughtful and in-depth reflection (p. 14)

Relationship then, is not only a foundational value informing IESS pedagogy, but also a foundational component of supporting learner transformation. For me, this creates opportunities to practice other values, which have been identified in this study, such as honesty and reciprocity. As an instructor in IESS I am conscious of needing to role model honest sharing and reflection in order to create a space where students feel comfortable doing the same. To me, this is also about creating equal relationships and working to dissolve the traditional western dichotomy between teacher/student. I think it would be unfair and unrealistic for me to expect my students to share openly and deeply about their lives, thoughts, feelings and experiences if I am not willing to do the same.

Transformative learning theory typically deals with two levels of transformation as separate processes, the processes of individual transformation and the process of societal level transformation (Taylor, 2009). IESS pedagogy seeks to engage the individual in personal transformation in order to position them as agents of change in wider society. Theorists suggest that experiential education is central to transformative learning and that classroom experiences can provide triggers or disorienting dilemmas to provide critical self-reflection and transformation (Taylor, 2009).

In IESS this is achieved by hosting class and seminar outside, bringing in Knowledge Holders from diverse knowledge systems, making use of Indigenous spaces, such as the tipi or teaching rocks, and engaging in ceremony and ways of knowing typically found outside the confines of mainstream academia. Each student deals with these different approaches in their own way, some are more comfortable/familiar with the tipi while others are more comfortable/familiar in the science lab and vice versa. IESS engages learners in open dialogue following their experiences in these various contexts to

create space to unpack the emotions and thoughts as they come up in response to their learning journey.

Scholars and researchers have written about the importance of a learning community in transformative education (hooks, 1994; Wyatt, 2012). These writers and others have emphasized the importance of a cohesive cohort in supporting learner transformation as it creates a learning environment that is both safe and supported where students' relationships with one another can flourish.

Fenning (2004) defines a cohort as “a group of people who stay together from beginning to end of a program and who grow through the process while developing community and support, experiencing essentially the same stimulus material and challenges of the work environment” (p. 5). Yet, cohort learning itself does not ensure transformation will occur with learners, Wyatt (2012) writes, “The community and support that are necessary for effective cohort learning emerge from the interactions between the cohort’s members... the group dynamic has been found to be a key element that can contribute to learning and positive program outcomes” (p. 45).

The factors necessary for a supportive cohort include the importance of fostering an open, safe and trusting learning environment between learners in a program. Lawrence (2002) further elucidates this thinking, “Communities develop over time and with intention... members of the community must come to know each other and develop a respect for one another’s strengths, weaknesses, similarities, and differences. When commitment is high and contributions from all members are valued, communities have the potential to co-create knowledge, make effective decisions, and effect change. (p. 84).

Researchers highlight the role of experiential education in developing a positive cohort learning environment. For example, Seed (2008) notes that experiential education assists in building a strong cohort of learners and that an appropriate cohort dynamic in turn supports program goals such as learning and personal growth (transformation). Scribner and Donaldson (2001) also speak to the importance of group climate, norms, communication and roles, suggesting that these aspects can either support or impede learning in a cohort setting. D'Amato and Krasney (2011) speak to the critical importance of a 'tight-knit' learning community, which supports learners in the challenges that arise in transformative learning environments.

Therefore, the importance of a supportive learning community cannot be underestimated. This community also becomes a support network for graduates when they leave the university and embark upon their careers. Given this, ideally, IESS programming in the university setting will be structured around a yearly incoming cohort of learners who generally progress through the program together as a community. Welcoming new students to the program and creating time and space for them to begin to know one another and explore the theme/objectives of the program/course is crucial in setting the context of the transformative journey that is ahead of them. Ideally, the incoming cohort and faculty spend time on the land at the outset of the program. Time on the land both within courses and as additional offerings to students should form a thread that runs through student experiences in IESS. There is room for elective courses within this framework, but I would recommend that programs seeking to promote learner transformation structure programming in a way that enables students to build

relationships over time to deepen their engagement with themselves in relation to course content.

From this brief exploration of transformative learning theory, we can see that there are many mutually reinforcing elements between transformative learning theory and IESS pedagogy. Activating and promoting these elements, such as, trusting and honest relationships, open dialogue, self-reflection and awareness, readiness to learn, change and grow, experiential learning on the land and supportive learning community can create contexts of personal transformation and initiate the individual and societal level change needed to address systemic racism and settler colonialism and the environmental issues caused by these destructive social systems.

Part of transformative learning philosophy is to share with learners the objectives of learning and transformation as part of the learning process. Being explicit about the approaches and processes of learning in IESS pedagogy supports learners in understanding their learning journey and making sense of their experiences. It can also support them in developing expectations at a time of change and potential upheaval as they begin to engage in the IESS learning experience amidst other changes in their lives simultaneously. This is where making space for emotions, being clear about the role of discomfort in the learning process, illuminating anti-racist/anti-oppression learning approaches, and so on can begin to build a foundation for personal exploration with respect to experiences as they learn, grow, and progress through the program. In this way, being explicit and open about the power and racial dynamics in IESS contexts, including IESS learning environments is critical. Building learner competency in cross-cultural engagement—engagement, which will characterize their experience as a student

in IESS—is bolstered their experiences in the classroom as they practice cross-cultural engagement with their colleagues through IESS curriculum.

A Note about Educators

Briefly, I would like to explore the importance of diverse and well-qualified educators in implementing IESS pedagogy. First, I think it is crucial to ensure that there are a balance of perspectives and knowledge systems embodied by the educators in IESS. It is key that Indigenous Elders, Knowledge Holders, and practitioners lead the development of such programming and that these experts are compensated for their time in developing and implementing IESS pedagogy.

It is also essential that settlers take up their responsibility with respect to educating other settlers about the history of colonialism and on-going settler colonialism. The burden should not fall upon Indigenous scholars and practitioners alone to educate non-Indigenous people. Therefore, non-Indigenous educators who have been trained in anti-racist/anti-oppression and are well-versed in colonialism/settler colonialism are also critically important in IESS. In my experience, it is ideal to team teach in these contexts and make space for both Indigenous and non-Indigenous educators, so that students have broad role models and educators to learn from and build relationships with.

Chapter Conclusion

This chapter provides an in-depth description of the philosophical underpinnings of an IESS pedagogy, based upon the discussions and recommendations from participants in this study and informed by the literature. The primary philosophical underpinnings that were discussed include the need to address racism through education by employing

techniques such as difficult dialogue, understanding microaggressions, and engaging in deep personal reflection, to explore identity and in particular the dominant culture identity of settler colonialism, to honour emotions and provide opportunities for land-based and experiential learning and to facilitate a process of personal transformation as part of the learning process. These underlying philosophies and approaches to learning will be applied in the next chapter, which will offer curriculum design suggestions for post-secondary learners and professional development training for practitioners who work on environmental challenges that bring together Indigenous and non-Indigenous people and their knowledges.

Chapter Eight: Discussion- IESS Curriculum Design

The term curriculum is used here to refer to the subjects within a program or course of study. This chapter identifies the key topics, identified by participants as essential in IESS programming and also in the sciences (biology, chemistry, engineering, etc.) and environmental education programs to prepare learners to engage cross-culturally. These subjects were seen as important for individuals to learn in order to enable them to respectfully engage across cultures in the context of addressing environmental concerns collaboratively. This content is presented in the context of the Trent IESS program as an existing IESS program at the post-secondary level. However, it is argued that these courses, resources, and design elements are critical for an IESS type programming initiative as described by the participants in this study.

IESS at Trent contains two streams, the sciences and studies, where the skills, knowledge, and abilities are particularized for each stream. Within the program, there are certain required courses and a series of electives depending on the stream in which a student is enrolled. A full listing of existing IESS course requirements and descriptions is provided in Appendix D.

Program Design

In reflecting upon the interview discussions in this study and the work of scholars reviewed throughout this dissertation I offer the following instructional design to facilitate the transformative learning experience advocated for in this study.

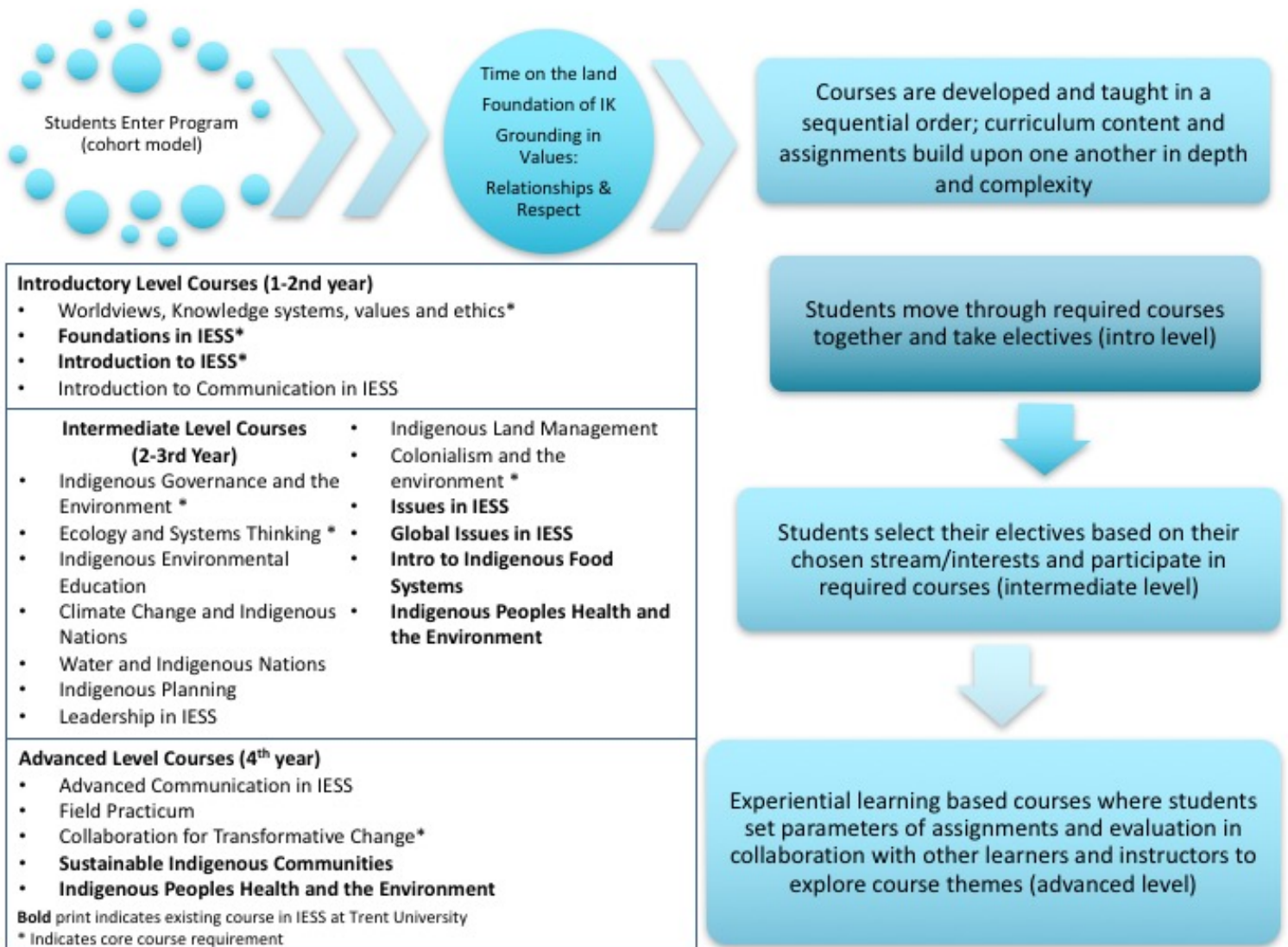


Figure 4: Proposed IESS Program Flow

Proposed Courses

In this chapter, I identify a series of subjects/topics that are drawn from the interviews and reflect the various values, skills, attributes and knowledges that were discussed in chapter four. I will highlight the subjects which were seen as ‘essential for everyone’ and those which are well suited to being situated within an IESS program but may not be necessary for someone studying in biology, for example.

Table 4 contains a list of suggested course theme areas. These are rooted in the feedback from the interviews discussed in chapters four and five and does not include courses already offered in IESS programs at Trent or elsewhere. The theme areas suggested here are intended to augment and build upon the courses already being offered in IESS. Some theme areas are presented with an asterix in the table, which indicates which themes participants in this study recommended as required for everyone whereas other courses could be offered as elective.

Currently, all students in IESS at Trent University are required to partake in introductory level Environmental Resource Science and Indigenous studies courses as well as *Foundations in IESS*, which introduces students to Indigenous and western knowledge systems and engages students in beginning to develop a critical understanding of settler colonialism and anti-racism/oppression. In their second year, students are then required to take *Introduction to Indigenous Environmental Studies and Sciences*, which immerses students in Haudenosaunee knowledge foundations, such as the Creation Story, the Cycle of Ceremonies, the Great Law and other topics to provide students with grounding in IK and introduce them to the environmental philosophies, which are embedded in traditional teachings and language. This second-year introductory course also invites guest speakers from other knowledge systems (for example, Anishinaabeg) to ground them in multiple IK systems and also furthers their understanding of Indigenous-non-Indigenous relations within environmental contexts. In the third year of the program, students begin to explore *contemporary issues in IESS* through two issues courses, which look at contemporary issues in Canada and internationally, respectively. In third and fourth year, students select courses that focus on *community sustainability, health and the*

environment and Indigenous Food Systems. The courses and their progression are designed to foster critical and innovative thinking, to build research skills, to hone communication abilities (oral and written), to support learners in developing their capacities to work collaboratively, and to foster active listening skills.



Figure 5: Overview of Approaches to teaching and learning in IESS

Chapter six, which outlined the philosophical underpinnings and approaches to teaching and learning in IESS pedagogy, provided a foundation for course design and the selection of subjects listed in Table 4 below. The proposed courses have been developed with the objective of offering opportunities for learners to experience the approaches outlined in chapter six through the process of learning the course content, gaining knowledge, and cultivating the values, skills, and attributes outlined earlier in this dissertation. The approaches, shown in Figure 5, can be operationalized at multiple levels, including assignments, courses, and the overall program. I have not provided a detailed description of assignments or group activities for each specific subject area, but have provided guidance on the type of activities or assessments that may be useful in specific courses in some cases, based on the findings of this thesis.

Table 4: *Suggested Themes for Post-Secondary IESS Learning Contexts*

Proposed Theme Area	General Description	Learning Outcomes	Level
<p>*Worldviews, Knowledge systems, values and ethics</p>	<ul style="list-style-type: none"> • Explore what is a worldview and knowledge system • Experience Indigenous and Western knowledge systems • Reflect on own worldview, self, beliefs and values • Develop understanding of responsibilities within IK systems • Time on the land <p>This course connects with the foundational knowledges that participants suggested were necessary to respectfully collaborate (knowing yourself (exploring identity), knowing who you are working with, etc.) and that research explored in chapter six reflects are key knowledge foundations for being able to bring knowledge systems together. Students would build skills in communication and reflection through dialogue, written reflections, and other activities.</p>	<ul style="list-style-type: none"> • Build capacity to engage cross-culturally and self-reflect • Develop values from multiple knowledge systems (including the importance of relationships, respect, gratitude, humility, and other foundational values) • Describe the skillset required within IESS and self-assess according to personal gifts and strengths • Develop awareness of knowledge system interaction and foundational principles of respectful cross-cultural engagement • Develop critical thinking, active listening, writing, and reflection skills 	<p>Introductory</p>

<p>Intro to Communication in IESS</p>	<ul style="list-style-type: none"> • Explore communications approaches and theories: • Story telling • Digital Media • Communications planning • Written communication: online, reports, journalism • Oral communication: presenting, facilitating, conflict resolution • Evaluating communications strategies • Time on the land <p>This course reflects the heavy emphasis that participants in this study placed upon the necessity of developing communication skills to be able to respectfully collaborate across cultures.</p>	<ul style="list-style-type: none"> • Develop understanding of various modes of communication in IESS contexts • Develop story-telling skills across various media; understanding the importance and role of orality in Indigenous knowledge systems • Develop skills in writing, presentation, facilitation • Begin to cultivate digital media skills such as digital story-telling, online communications, • Understand the importance of evaluation and obtain basic knowledge of evaluation methods 	<p>Introductory</p>
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<p>*Indigenous Governance and the Environment</p>	<ul style="list-style-type: none"> • Treaties, laws, rights and responsibilities • Indigenous sovereignty and jurisdiction • UNDRIP • Relationships between Indigenous Nations and settler governments/corporations around the environment • Frameworks and approaches in collaboration • Free, prior and informed consent (FPIC) • Internal and external policies about the environment • Time on the land <p>This course responds to the importance that participants in this study placed upon knowing about the legal contexts underscoring Indigenous rights and environmental collaboration.</p>	<ul style="list-style-type: none"> • Ability to identify treaty territories • Understanding of treaty history and the implications for Indigenous relationships with their traditional territories and implications for the environment • Developing understanding of legal contexts within Canada and internationally • Knowledge of Indigenous rights frameworks and laws • Further develop research, analysis and referencing skills • Practice written communication skills 	<p>Intermediate</p>
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<p>* Ecology and Systems Thinking</p>	<ul style="list-style-type: none"> • Students are introduced to the field of ecology • Time on the land exploring field methods and biological systems • Introduction to systems thinking and philosophy • Introduction to the basic function of systems including feedback loops and leverage points • Exploration of connectedness of earth systems and relationship to self and other beings in Creation <p>Ecological and systems thinking are suggested here as a response to the call from participants in this study for individuals to develop holistic approaches, to think at various levels and scales, and to see themselves as part of interconnected biological systems.</p>	<ul style="list-style-type: none"> • Develop understanding of field methods/approaches in ecology • Further build research, analysis and writing skills • Develop understanding of connection and interconnection and the basic function of systems (i.e. feedback loops, leverage points, etc.) • Personal reflection and awareness of self and nature 	<p>Intermediate</p>
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<p>Indigenous Environmental Education</p>	<ul style="list-style-type: none"> • Traditional education systems, approaches, programs • Engaging the public on issues • Education at museums, nature centers, parks/protected areas – critique and best practices • Education models for program development • Evaluation of educational programming • Anti-oppression/anti-racist education theory • Time on the land <p>This course stems from the feedback in this study to develop approaches for communicating and engaging at multiple levels and for critiquing environmental/conservation movements and approaches from a decolonizing lens.</p>	<ul style="list-style-type: none"> • Experiential learning in Traditional Knowledge systems and approaches on the land (tracking, maple syrup making, ricing, canoe-making, etc.) • Develop understanding of approaches to education outside of public/post-secondary • Ability to design, develop and deliver educational programming • Understanding of relevant educational theories • Develop oral/written communication skills 	<p>Intermediate</p>
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<p>Climate Change and Indigenous Nations</p>	<p>Exploring climate change from an Indigenous perspective, including the impacts of climate change, approaches to mitigating and adapting to climate change and climate change education in First Nations. Students will examine opportunities for IK to inform climate research, approaches, policy, etc. Exploring rights and responsibilities with respect to climate change. Time on the land and learning about field methods related to climate, weather, and other methods related to climate.</p> <p>This course responds to subject-specific training that was identified in this study, particularly for finding responses to environmental challenges that bring together IK and WK in examining environmental challenges, rather than relying on an approach that focusses on augmenting western science understandings with IK.</p>	<ul style="list-style-type: none"> • Develop understanding of climate change, how it works, and impacts • Develop deep understanding of climate change in an Indigenous context including the unique challenges faced by Indigenous Nations • Learn from IK systems about climate change and addressing it • Develop research, analysis and referencing skills 	<p>Intermediate</p>
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<p>Water and Indigenous Nations</p>	<p>Learning from Indigenous perspectives, students will explore contemporary water issues as well as practices for the protection of water. A key part of this course is student-led research on water as well as time on the land learning about methods of protecting water and assessing water quality/quantity.</p> <p>This course responds to subject-specific training that was identified in this study, particularly for finding responses to environmental challenges that bring together IK and WK in examining environmental challenges, rather than relying on an approach that focusses on augmenting western science understandings with IK.</p>	<ul style="list-style-type: none"> • Develop understanding of contemporary water issues, such as Boil Water Advisories, water contamination, water protection in Indigenous Nations • Learn from within IK systems • Field methods in water assessment (quality, quantity, riverine systems, etc.) • Develop awareness of provincial and federal legislation with respect to water 	<p>Intermediate</p>
<p>Indigenous Planning</p>	<p>Indigenous approaches to planning at local/community and national levels. In depth exploration of planning from an Indigenous perspective including goals, timeframes, philosophies, and approaches to planning. Review of case studies to explore planning experiences and outcomes for Indigenous Nations across Turtle Island. Systems planning in terms of transportation, food, economic, education, energy systems. Time on the land.</p> <p>This course was suggested by Kyle Powys Whyte in our discussion and reflects the need to highlight and recognize ways of thinking and doing that are outside of western approaches.</p>	<ul style="list-style-type: none"> • Students gain understanding of and skills in Indigenous planning methods • Students are able to compare and contrast between Indigenous approaches and western approaches to planning and to bring together best practices from across disciplines 	<p>Intermediate</p>

<p>Leadership in IESS</p>	<p>This course will explore leadership from Indigenous perspectives including the roles, responsibilities, gifts, and philosophies of leadership. Students will have the opportunity to explore their own abilities as a leader and build an understanding of their unique contributions to governance and nationhood given their positionality. Learners will explore community-driven projects and learn the foundations of project management. Communicating ideas and sharing information with community. Consensus building and advocacy processes in community. Time on the land involved in a restoration project.</p> <p>Leadership was a strong theme in the interview discussions in this study; this course was recommended by several participants for the need to develop leadership skills as well as to develop capacity to identify effective leaders and governance structures.</p>	<ul style="list-style-type: none"> • Develop an understanding of what it means to be a leader, including the responsibilities and sacrifices of various forms of leadership • Build ability to facilitate group dialogue • Students will gain a stronger understanding of their gifts and contributions • Build self-awareness • Introduction to project management in Indigenous communities and organizations 	<p>Intermediate</p>
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<p>Advanced Communication in IESS</p>	<p>Learners are exposed to group facilitation techniques, including fostering dialogue, moving through conflict, and building consensus. Learners develop a proposal for a communications project that they will implement online to tell a particular story/explore an issue and move through the stages of planning, development, design, implementation and evaluation of their project.</p> <p>This course responds to the need identified in this research for advanced level facilitation and conflict resolution training in this study. In particular, the need for training that draws specifically from cross-cultural contexts, rather than more mainstream approaches to group facilitation and conflict resolution.</p>	<ul style="list-style-type: none"> • Develop in-depth understanding of approaches used in group facilitation, conflict resolution and consensus building • Develop confidence in leading group discussions and presentations • Enhance digital media skills such as online writing, video, photography, etc. • Develop project management skills 	<p>Advanced</p>
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<p>Indigenous Land Management</p>	<p>An introduction to land management from an Indigenous perspective. This course looks at land management in terms of the Indian Act framework of reserve lands and also management of wider traditional territories. This course explores original treaties between Nations with respect to management of shared territories and introduces students to underlying philosophies of land management. Policies, regulations, and law internally and externally. Course should include land-based learning and experiences.</p> <p>This course builds on the recommendation in this study that learners are grounded and familiar with the legal system and laws in place in a Canadian context and to base an understanding of land and environmental management in Indigenous approaches.</p>	<ul style="list-style-type: none"> • Deepen understanding and engagement with IK • Understand approaches to land management from within IK systems • Develop writing and analytical skills • Understand key differences and similarities between Indigenous approaches to land management and western approaches 	<p>Intermediate</p>
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<p>*Colonialism and the environment</p>	<p>Students will be introduced to the environmental/conservation movement beginning with 19th century movements to create parks and protected areas to growing awareness of environmental contamination and climate change over the decades leading into the 21st century. The role of conservation/environmental movements in perpetuating colonialism will be examined as well as current efforts to decolonize within the environment sector. Exploration of capitalism, the natural resources economy, and politics in a Canadian context with respect to colonialism and associated impacts on Indigenous territories will be included along with introduction to various relevant theories (i.e. Staples theory, feudalism, etc.) A key element of this course will be exploring personal implication in systems of colonialism and oppression. Course should include field visits and time on the land.</p> <p>This course draws on the acknowledgement in this study that oftentimes environmental organizations and their staff perpetuate colonial, settler colonial, and racist approaches, ways of being, and language in their environmental practice and relationship to the land. This course would illuminate these issues and offer alternative approaches to environmental practice.</p>	<ul style="list-style-type: none"> • Develop critical awareness of the ways in which colonialism has been reproduced and hidden by non-Indigenous environmental and conservation sectors • Develop understanding of settler conservation/environmental movement across Turtle Island • Develop awareness and understanding of early western philosophies of conservation • Explore settler identities and begin to explore personal identity • Understanding of environmental racism and environmental justice 	<p>Intermediate</p>
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Field Practicum	<p>Learners work within an Indigenous organization or community for a period of 3-7 months depending on the course. Students develop a project with the organization/Nation. Students participate in weekly meetings with other students/instructor to review experiences with the practicum. Students prepare a final paper and presentation that summarizes the work they did and their experience in the practicum.</p> <p>This course stems from the suggestion in this research that time on the land is critically important in student learning and the need to facilitate direct relationships between learners and the land. It also responds to the need for relationship building and in particular supporting mentorship opportunities for learners.</p>	<ul style="list-style-type: none"> • Develop network and create linkages with wider IESS community • Refine research, writing and presenting skills • Further build self-awareness • Opportunity to implement values/approaches for engaging with community • Develop understanding of project management skills 	Advanced
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<p>Collaboration for Transformative Change</p>	<p>Learners participate in an open dialogue to determine the focus of a shared project(s) that will roll out over the period of time they are enrolled in the course (suggested minimum time 3 months):</p> <ul style="list-style-type: none"> • Dialogue driven approach • De-brief of group experiences/discussions • Personal self-reflection • Development/implementation of group project within community <p>This final course is envisioned as a capstone course, which would draw upon the major elements discussed in this study. This course would foster dialogue building opportunities, relationship building, communication skills, and also result in a ‘real world’ opportunity to effect change collaboratively. By designing an open-ended course of this nature, learners will have the opportunity for experiential learning, as well as the other elements highlighted in the description and outcomes.</p>	<ul style="list-style-type: none"> • Learn to determine roles, responsibilities, and accountability in shared work • Build communication skills through experiential learning in consensus building, conflict resolution, group facilitation • Further develop self-awareness through personal written and group reflections • Apply project management skills to embody previous learning (budget management, planning, implementation, etc.) • Apply evaluation techniques to determine success of group projects 	<p>Advanced</p>
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Resource requirements

In order for IESS programming to be most effective, there are some essential resource requirements, which would enable learners to maximize their learning. The following section will briefly suggest some key resource requirements, which are summarized in figure 7. These resource requirements are drawn from the insights offered by participants in this study and the material presented in earlier chapters and are needed to enact the philosophy presented in chapter six. This section is meant to provide a starting point for educators and is not intended as an exhaustive list of resource requirements as there are likely different requirements and needs in different territories

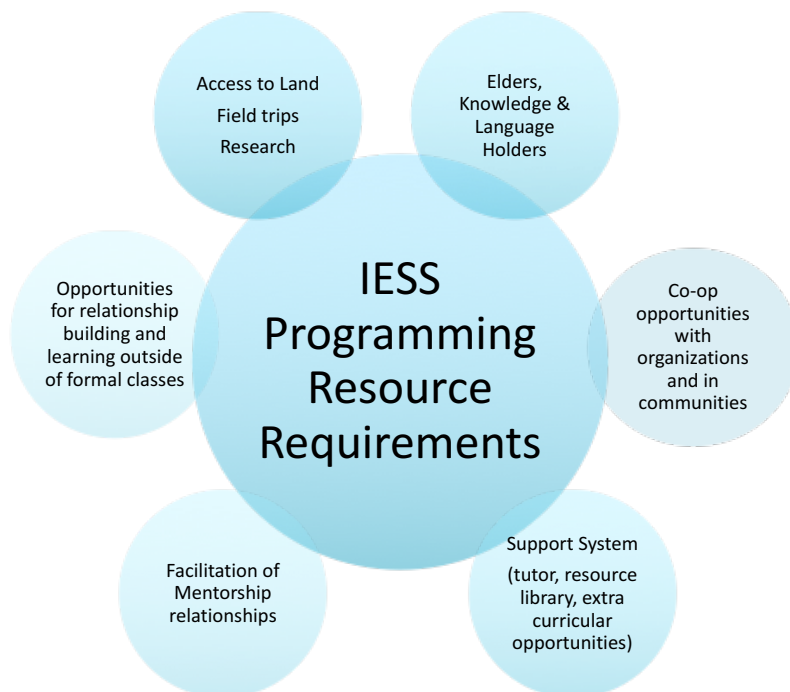


Figure 6: Overview of IESS Programming Resource Requirements

and when working with different groups of learners. I see this list of program resources as an interconnected web of mutually reinforcing elements, connecting learners with instructors and Elders, community members, and the land where each additional element adds strength to the overall learning community.

Elders, Knowledge and Language Holders

Participants in this study identified the crucial role that Elders and Knowledge Holders play in supporting them in their work and personal learning. Indigenous scholars have identified the importance of linking youth and other learners with Elders and Knowledge Holders as an essential part of learning from within IK systems (Simpson, personal communication, 2012). By ensuring the involvement of Elders and Knowledge Holders, programs can support the development of relationships across generations and the sharing of knowledge in respectful and ethical ways. It is critical that Elders and Knowledge Holders are compensated appropriately for their time and knowledge, which should involve faculty positions for Elders and Knowledge Holders that are essential to programming and appropriate honoraria for guest speakers and educators.

Access to Land

Participants in this study advocated for both relationship building and learning to take place on the land. Current IESS programming depends on the wider campus for many of the program elements, such as use of the tipi and sacred space on campus for traditional teachings or the use nature areas to support learners in developing a reciprocal relationship with the natural world. Building learners' connection to the land is a central element of IESS programming therefore, providing for regular access to host classes and seminars out of doors is essential. It is also critical to ensure that programming, which

seeks to teach from a foundation in IK has access to traditional teaching spaces. As mentioned, the tipi is one way of doing this at Trent, however more could be done in this area, for example, the creation of more learning spaces that emerge from local IK systems such as long houses, wigwams, traditional gardens, and so on.

Opportunities for relationship building and learning out of class

Opportunities for students to further enrich their academic experiences outside of class through various means including workshops and activities (i.e. corn lying and tracking), regular program feasts (one at the start and end of the terms), hosting conferences for the wider community and encouraging participation in activities outside of class (for example local pow wows) are examples of avenues through which students can deepen their learning and relationships. These informal learning opportunities offer essential relationship-building experiences and enable learners to apply their learning.

Other resources and support systems in IESS

Other resource requirements that have been identified in this study include the role of a mentor/coach and having individuals that are interested in taking on these roles. Again, ensuring compensation for time and efforts is essential. Another way to underscore the importance of mentor/coaches, could be creating time and space for a co-op learning opportunity. Working with local, provincial and national organizations to create co-op agreements would be a great way to facilitate experiential learning and offer learners to change to build their professional network and apply their learning.

Having access to tutors is an important learner support in IESS. At Trent, the IESS program has developed an IESS resource library, which hosts relevant and rare materials for students in IESS courses in IESS. The IESS resource library is maintained

and monitored by graduate students in IESS, who also provide tutoring and counselling services for learners in IESS. Students can visit the library to find support, research materials, have a cup of tea, and ask questions. The IESS resource library supports student success and learning and offers an opportunity for relationship building between undergraduate and graduate students.

Chapter Conclusion

This chapter has synthesized the feedback from participants in this study and applied it to the development of a program flow and course theme suggestions that would encourage the cultivation of the specific values, attributes, knowledges and skills that are needed to work respectfully and effectively across cultures on environmental challenges. The contributions identified are meant to be a starting point for educators in developing curriculum at any level, which can be adapted given their particular contexts, target audiences and their needs. I have offered specific course suggestions that could augment the IESS programming currently in place at Trent University. The curriculum could also be used as a starting point for the development of new IESS-type programs and courses at other post-secondary institutions.

The next chapter will identify specific training recommendations that participants in this study suggested for professional development training.

Chapter Nine: Discussion- Recommendations for Professional Development Training

Throughout the discussions in this study participants identified that professional development training was a key need, both for themselves and their colleagues.

Participants spoke to numerous challenges they encounter due to the lack of awareness and understanding of the non-Indigenous people they collaborate with. As Kyle Powys Whyte described,

A lot of the people I interact with are starting from zero, which when you're thinking about a tribal context, one of the things that means is that they probably actually aren't even aware that tribes are sovereign, self-determining, governing peoples.

Many participants echoed this sentiment and identified essential training needs for environmental practitioners, regardless of their background and culture. The format and approach to professional development training in these contexts can and should draw upon the principles and approaches identified in this study with respect to IESS pedagogy and foster the cultivation of the values, skills, attributes and knowledge that have been articulated throughout this dissertation. Additionally, some of the course topics identified above are relevant to and reinforce the professional development training suggested below.

I recommend practitioners and trainers develop professional development training that incorporates the key approaches to IESS pedagogy, such as experiential learning, anti-racist, transformative and time on the land in thinking about how to engage career professionals in education and training that seeks to increase their capacity to work cross-culturally.

As practitioners in this study recommended, it is important to engage learners in professional development training using an approach that does not overwhelm people,

provide “too much at a time” or rush people through the learning process. In this way, it could be helpful to develop a structure for training that seeks to continually engage learners over a long period of time, for example over the course of a year (or longer) through regular in-person meetings, which could be augmented by personal reading, reflection, videos and online learning between in-person meetings. By engaging learners over time, training can also draw upon current issues and new considerations as they develop (such as changes to government legislation or new work by third party organizations like the United Nations). This will support practitioners in staying up to date on the most recent developments in this field.

Participants in this study noted that there are people who are ‘closed off’ to learning about Indigenous issues and history because they were not taught the truth about Canadian history and the relationship between Indigenous people and the Canadian state in school. This can make it difficult to open people up to learning, as the new content can challenge their foundational beliefs, which can be an uncomfortable process. Structuring training in such a way that gently moves people through this process of learning resonates with the recommendations put forward by participants in this study. At the same time, being upfront that training may challenge existing beliefs or be uncomfortable at times will help prepare learners for their learning journey. Individual openness to learning and confronting personal beliefs, values and worldviews will vary and educators should be mindful of learners in their programs to gauge how much information may be too much and where to begin with professional development training.

Below I present the central themes and subjects with respect to professional development that emerged from discussions with the practitioners involved in this study.

These themes will be explored broadly and generally. These broad themes should be paired with the courses outlined above in the IESS curriculum section. Following the presentation of broad themes and subjects, I identify specific target audiences for professional development and the particular training needs for each audience, as suggested by participants in this study.

Cross-cultural Engagement is Essential and Beneficial

Industry representatives in this study noted that cross-cultural engagement is not only required by law to do business, but that it provides tangible benefits to those who engage meaningfully with the Indigenous Nations on whose territories they operate. Industry representatives noted that effective cross-cultural engagement creates greater certainty and it enriches projects therefore benefitting business while also supporting local communities in achieving their goals. At the same time, these industry participants noted that training and support in this area is critically needed. One industry representative spoke about how he had to do extensive internal work with company employees to build their understanding of why cross-cultural engagement was needed (i.e. the legal requirements as well as ethical reasoning) and to build their capacity to engage respectfully. Based on the specific suggestions that were made in the interviews I have compiled a list of subjects and target audiences specifically for professional development training. Table 5 summarizes the professional development training needs and target audiences recommended in this study.

Table 5: *Summary of proposed topics and audiences for professional development*

Proposed topics for Professional Development Training	Target Audiences
Racism, Oppression, and Microaggressions	Natural Resource Industry Staff, Post-secondary Faculty, Post-secondary Students, Government Staff/Politicians, Teachers in the Public education system, Indigenous Practitioners, Environmental organization Staff
History of Indigenous and non-Indigenous Relations	Natural Resource Industry Staff, Post-secondary Students, Government Staff/Politicians, Teachers in the Public Education System, Environmental Organization Staff
Unsettling the Settler	Natural Resource Industry Staff, Government Staff/Politicians, University Students, Teachers in the Public Education System, Environmental Organization Staff
Cultural Awareness and Sensitivity	Natural Resource Industry Staff, Government Staff/Politicians, Post-secondary Students, Post-secondary Educators, Teachers in the Public Education System, Environmental Organization Staff
Understanding Community Contexts and Realities	Natural Resource Industry Staff, Government Staff/politicians, Environmental Organization Staff
Understanding Worldviews, Knowledge Systems and Ways of Knowing	Natural Resource Industry Staff, Government Staff/Politicians, Environmental Organization Staff, Teachers in the Public Education System, University Faculty
Protecting Knowledge and Intellectual Property	Natural Resource Industry Staff, Government Staff, Environmental Organization Staff, Indigenous Practitioners
Subject-specific training (i.e. Climate Change and TEK)	Everyone
Fostering Connectedness and Thinking Holistically	Natural Resource Industry Staff, Government Staff/Politicians, University faculty and students, all levels of learning

Evaluating Projects, Programs and Collaboration	Natural Resource Industry Staff, Government Staff/Politicians, Indigenous Practitioners
Communication: Advanced Facilitation and Conflict Resolution	Natural Resource Industry Staff, Government Staff/Politicians, Indigenous Practitioners, Environmental Organization Staff
Creating Transformative Change	Natural Resource Industry Staff, Government Staff/Politicians, Teachers in the Public education system, Indigenous Practitioners, Environmental organization Staff
Principles of Relationship Building and Fostering Nation to Nation Relationships	Natural Resource Industry Staff, Government Staff/Politicians, Indigenous Practitioners, Environmental Organization Staff, All students and teachers in Canada

Racism and Oppression

Relevant at all levels of professional development is the need to examine and explore racism and oppression in a Canadian context. Becoming familiar with terminology, such as the microaggressions theory outlined in the chapter 6 is one starting point, but this should extend to exploring in depth government discourses and approaches with respect to the role they may play in furthering systemic racism. As one participant from government noted, for example, the focus on economic development can be seen as another attempt at assimilating Indigenous people into the greater Canadian context. Therefore, looking to uncover and eliminate racism, systemic racism and oppression is an important element of professional development training for people working cross-culturally.

Another key topic to explore along this theme is the difference between racism and discrimination with a particular focus on how racism is perpetuated. Again, exploring Veracini's (2010) transfers would be helpful here. Focusing on the importance

and power of language is helpful in this context to create links between unconscious thought/speech and systemic racism. Participants in this study noted that the English language can be limiting and that there is a need to be critical of and rethink our word choices, especially as they relate to government driven approaches. Some examples explored through interview discussions included the focus of the government on ‘getting to consent’ for projects (which can imply that government regulatory processes are designed to coerce communities to approve projects) and the limited language of an Impact Benefit Agreement, which one participant noted was a negative and limited way of framing a relationship between an Indigenous Nation and a project proponent.

History of Indigenous and non-Indigenous relations

Professionals who work cross-culturally with Indigenous people need a comprehensive knowledge of history. This includes knowledge of early encounter era, treaties and traditional territories, the doctrine of discovery, the papal bulls, supreme court rulings and decisions and legal title, the Royal Commission on Aboriginal Peoples (RCAP), the Truth and Reconciliation Commission (TRC) and other key elements of Indigenous and Canadian history.

One participant shared an approach he has used in delivering professional development training with government, which was to create a large timeline and to print on smaller papers all the major events starting with Indigenous histories relevant to the territory and moving up to the present day. Key events and elements are on smaller cards, which training participants then have to put on the timeline in the time period where they think it took place. This is done at the start of training and then trainers go through the pertinent content and at the end of the training session the group takes up the

timeline activity. Oftentimes, when taking up the timeline, participants see that they were incorrect about many of their guesses, which is a helpful reflective exercise to open them up to the learning process. After the timeline activity, learners can engage with looking at key documents such as RCAP and the TRC. Exploring the recommendations of these reports in detail and finding ways to implement them could be a powerful leverage point in training with government participants. Exploring the treaties relevant to the territory was identified by participants in this study as essential in these theme area.

Beyond exploring historical contexts, it is also essential to ensure practitioners are aware of the contemporary frameworks and approaches both in a Canadian context and internationally. These include frameworks such as the Section 35 of the Canadian Constitution, United Nations Declaration on the Rights of Indigenous Peoples and Free, Prior and Informed Consent as well as understanding the implications of the Canadian government's fiduciary duty to Indigenous peoples. Understanding these frameworks and how they can be utilized to create tangible, positive change should be a key focus of professional development training.

Unsettling the Settler

This theme of unsettling has been explored in detail in this dissertation. Here it is important to note that participants felt that this should be a key component of professional development training and that it was important to begin with exploring settler culture and worldview early on in training. To me, this unsettling work ought to come after the process of learning about history in the context of exploring one's positionality and their complicity in systems of oppression including the unseen assumptions they carry with them that perpetuate negative colonial ways of thinking and being. This can involve deep

self-reflection, personal history work, researching one's family and learning about one's privilege.

Unsettling should also involve becoming familiar with the work of scholars such as Paulette Regan, Lorenzo Veracini, and Emma Battell Lowman and Adam J. Barker, which were examined in detail in chapter seven. Therefore, learning about the settler worldview, population economy, and the central beliefs and values of settler society is also key. Kyle Powys Whyte explained the focus of settler people on Turtle Island and the importance for people who work cross-culturally to have this understanding,

The fundamental desire they [settlers] had was to make this their Indigenous land and to erase everybody else whose presence would challenge that. Or whose presence and life styles would challenge that claim to this being the settler homeland and so, when people begin to realize the implications of that position, then they're in a much better position to collaborate. When I work with scientists, I very much start with that, I don't start with a cultural diversity approach

In exploring settler colonialism, it is important to focus both on the historical context as well as the current implications of this system of oppression, including the ongoing impacts, such as land dispossession and lack of access to traditional territories, the legacy of residential schools, the excessive incarceration of Indigenous peoples in Canadian prisons, environmental racism, and so on.

Cultural Awareness and sensitivity

There are a number of consultants and trainers that already deliver comprehensive cultural awareness and sensitivity training across Canada and I would recommend readers explore the various approaches used by these experts. In this study, participants advocated for cultural awareness training that worked against a 'pan-Indigenous' approach and instead focused on the specific nations on whose territory practitioners live

and work. Professional development training should support learners in developing an understanding of the many diverse Indigenous Nations across Turtle Island and learn about the local Nations first. Whose territory do you live and work on? What is the history of this Nation? What are the beliefs, values, and traditions of the Nations in your vicinity? These kinds of questions can guide learners toward a deeper understanding of Indigenous culture and support them in developing sensitivity in working cross-culturally.

Practitioners in this study suggested starting at the beginning with respect to engaging with Traditional Knowledge and teachings. Explaining what traditional teachings are, why they are done, the key characteristics (i.e. orality) and so on, are important foundational concepts to being able to delve deeper into the particular teachings of any given Nation. At the same time, it is not essential to share teachings as part of cultural sensitivity training, but rather simply to inform learners about them more generally. Working with Elders and Knowledge Holders to determine whether or not the sharing of particular teachings is appropriate is essential.

Exploring and cultivating the values and skills put forward in this study in the context of cultural sensitivity training is also important. Values such as respect, responsibility, relationship, reciprocity, humility, honesty, accountability, gratitude, non-judgment and so on, are relevant to developing one's capacity to engaging cross-culturally in a respectful way. At the same time, developing patience, open-mindedness, and active-listening are also crucial to increasing one's capacity to respectfully engage across cultures.

Introductory level cross-cultural collaboration should also include the basics of cross-cultural engagement, participants in this study noted that this includes the need to practice respect, for example, by not speaking on behalf of Indigenous people or making assumptions about people based on their Indigenous identity or physical appearance.

Understanding Community Contexts and Realities

Indigenous participants in this study noted that government and industry often were out of touch with the realities in which their Indigenous counterparts were working. One participant who works at a provincial level Indigenous organization noted that her contacts in government often acted as though she had the same resources as they did, which created difficulty and conflict in their working relationship. This participant noted that the director in a provincial ministry had upwards of twenty or thirty staff working with them, while she only had one staff person on her team in her director position. Yet, government would approach her with a file and expect an immediate response. Knowing that staff in organizations as well as at the community level are extremely resource-strapped is essential to finding ways of working respectfully. Furthermore, the government approach of imposing timelines is not only disrespectful but also unfair. This reflects the assumption that government priorities are the same as Indigenous priorities, which is not often the case. In reality, communities are dealing with their own priorities and challenges, while also trying to meet government imposed requirements with little (if any) tangible support from government to meet their expectations. This speaks to the need for government and industry to provide support and resources for Indigenous Nations and organizations to engage on government files and priorities.

One participant spoke to the number of competing files on her desk at any given time and that this meant that government emails and projects were not responded to immediately. In this same conversation, this participant shared that oftentimes government communication was offensive or inappropriate, which further delayed their engagement on that file.

Other community realities that government and industry need to be aware of are constraints with high-speed internet, the availability of power and other resource constraints that are unique to remote communities. Better understanding these resource constraints may help government staff develop more respectful and realistic timelines and approaches to their priority files and communicating/engaging with Indigenous Nations and organizations.

Another important element here is the reality that the Indigenous person that sits on a committee or working group for government or industry must be given time to take information back to their community(ies) and may need resource support for sharing potentially complex information with lay audiences in community. Coming to consensus on a file or project takes significantly more time than a top down approach to decision-making, therefore, government should be ready to make time and space for consensus driven processes.

Relevant here, again, is the need to work against a pan-Indigenous approach and instead to be aware that each Nation has their own ways of sharing information, coming to consensus and so on. It is essential for government and industry to understand these nuances and to take the time to work with each Nation on how they wish to be engaged and involved in projects and on files.

Another key consideration is the recommendation in this study is the idea of a ‘minimum benefit’. This recommendation suggests that Indigenous participants or Nations involved in a project or on a file should be offered a minimum benefit for their participation at the outset of a project. This honours the contributions and compromises individuals and communities are making to cooperate with government or industry on their priorities and ensures that there is a minimum benefit for their involvement. This also acknowledges some of the other challenges outlined in this section with respect to resource constraints.

Principles of Relationship Building and Fostering Nation-to-Nation relationships

The importance and centrality of relationship building in cross-cultural work has been articulated throughout this dissertation. Yet representatives from government and industry noted that moving from thinking about this importance ‘in theory’ to acting upon in reality was a central challenge. This suggests the need to explore principles and approaches to relationship building from an Indigenous perspective and to provide tools and approaches for building relationships through professional development training.

Participants in this study articulated that government continually engaged them as ‘an afterthought’ on important files and new legislation, which not only undermined relationships but also marginalized Indigenous voices in the development of laws and regulations that impact them. As one Indigenous participant explained,

I know that in the past we have communicated very clearly that any type of policy, whether it’s federal or provincial, even when it’s an idea, you need to come to the communities and ask, ‘what do you think about this idea? Do you think there’s a need for it?’ As opposed to the province, just looking within their own ministries and talking about it and writing it up.

This speaks to a fundamental power imbalance where Indigenous people have to continually advocate to be engaged in a nation-to-nation relationship and the government does not change their behaviour and continues to bring legislation to Indigenous Nations and organizations after it has been developed, oftentimes with tight timelines and key elements of the policy set in stone. This is not only disrespectful, but it shows a lack of interest in truly listening and building authentic relationships between government and First Nations.

In a cross-cultural context that engages Indigenous and non-Indigenous people, a key starting point is exploring what a nation-to-nation relationship looks like in practice and comparing that to how the relationship is currently characterized. Engaging with historical treaties and treaty-making processes is an important starting point. Exploring and critiquing the recent Ontario Political Accord is another framework that can support the building of an understanding of contemporary nation-to-nation relationships. Participants also explained that this involved negotiating cross-cultural governance on individual projects. This means that new processes and ways of relating may be required in different contexts. It was common for Indigenous participants in this study to describe situations where industry, government or environmental organizations approached them with a template from which to base relationships and engagement with one another. Instead, participants suggested that negotiating group processes and creating customized ways of relating were of critical importance in building relationships and fostering effective cross-cultural engagement.

A key impediment to relationship building was government budget and funding structures. One government representative in this study noted that common approaches

to relationship building (such as sharing a meal) would be difficult due to constraints around budgets. To me, this emphasizes the need to create separate budget areas for fostering relationships with Indigenous Nations over time.

A key theme that emerged from the interviews was the continued underestimation of the time needed to build trusting relationships. It is important for practitioners to see their relationships as nested within the collaborations and relationships that came before them, especially for those working in government and industry. Being aware of and understanding the legacy of mistrust, especially with respect to the particular contexts in which we work is crucial to creating positive and trusting relationships. As Kathleen Padulo described, “we’ve had some really good conversations in working relationships within one branch of the provincial ministry but it’s taken, can I tell you? At least 13 years to get to a point where they get it.” To me, this speaks to the patience of Indigenous practitioners, but also to the necessity to provide practitioners with the tools to build effective relationships while eliminating the structural constraints to operationalizing these recommendations.

Understanding Worldviews, Knowledge Systems and Ways of Knowing

The need to understand knowledge systems and ways of knowing is essential in cross-cultural collaboration and a key area where professional development training can support practitioners in collaborating in respectful ways. This relates to awareness of one’s own knowledge system and the ways in which individuals gain, evaluate, and incorporate knowledge and beliefs into their knowledge systems as well as building awareness that ‘other’ knowledge systems exist and have validity on their own.

To me, this is closely linked to developing cultural awareness and sensitivity particularly as it pertains to Indigenous Nations in the Americas. In these contexts, it is important to make time and space to understand the importance of Indigenous languages to IK systems and the role of story and oral traditions in passing on knowledge. Other essential ingredients to IK systems are the important role of Elders and Knowledge Holders, Youth and ceremony. Learning the elements of IK systems and the protocols to respectfully engage in those systems is important for practitioners to work cross-culturally.

Protecting Knowledge and Intellectual Property

There are countless examples where Indigenous knowledge systems have been exploited by governments, researchers, and industry for financial and/or other gain without proper attribution of knowledge or compensation for knowledge shared (Smith, 1999). Professional development training should create time and space to learn about international intellectual property rights and laws as well as Canadian laws in these contexts.

Additionally, practitioners should be provided with opportunities to learn about threats to IK and how IK can be protected. This is closely linked to learning about knowledge systems, where different knowledge systems ascribe different value on knowledge. For example, knowledge for knowledge's sake is a common axiom in western knowledge systems, which is generally not a shared value with IK systems. Understanding these differences and working closely with Elders and Knowledge Holders to ensure IK is protected is a crucial component of cross-cultural engagement.

Cheryl Recollet spoke to the need to explore with practitioners how to use the IK that is shared with them through cross-cultural collaboration in respectful ways. She explains,

But, what I'm looking for is, I told you my information and here's what my community provided. How did you integrate this into your permit and into your plan? Is it in an appendix at the back with all these TEK interviews or is it in the actual document and informing the project?

This speaks to a need to train practitioners on how to bring knowledge systems together effectively and their responsibilities to the knowledge that has been shared with them.

When Indigenous people take the time and effort to share knowledge and information it is done with a purpose in mind. Being able to determine the purpose and applicability of knowledge shared becomes a key skill that professional development training can support.

Subject-specific training on contemporary issues

In some cases, there may be a need for subject-specific professional development training. Many of the topics suggested for this overlap with subjects outlined in the IESS curriculum presented in chapter eight. Creating training that moves practitioners from the general to the specific in their learning journey, especially with respect to their particular work area, will deepen learner engagement and support them in identifying how what they are learning is directly related to their work. Therefore, subject-specific training such as climate change and TEK, Mining development and Indigenous Engagement, Conservation and Indigenous people, and so on will become important for specific audiences.

Fostering Connectedness and Thinking Holistically

Developing a sense of connectedness is a key focus of IESS pedagogy. This includes building relationships with those we collaborate with, but also seeing ourselves as deeply connected to the wider world. This is one element of IESS pedagogy that students in courses at Trent often speak to as a key part of their personal transformation: moving from seeing themselves as disconnected, isolated and alone to a connected member of ecological and social systems.

In professional development contexts, this connectedness can be fostered through exploration of systems thinking and through IK systems. Industry representatives in this study spoke to the need to think about working with Indigenous Nations in a holistic way, for example, Chris McDonell explained that he saw the role of his company in this way and it broadened their focus and approach to working cross-culturally,

I would say we have to think about how to reconcile a bunch of issues, historically on the land, how to make a work place more welcoming and not just next week, but so as to inspire kids that are 12 and 15 years old now, in these First Nations to look at, the facility as a positive place of employment, or to become an accountant and work for the company or whatever. You've got to think about that over a fair stretch of time... I have learned that I needed to spend quite a bit more time internally explaining what our thought process was, how it was good for our business to take efforts to work more closely with First Nations, why it was important and as well, we created a, a few opportunities where we'd have cross-cultural workshops

Therefore, effective cross-cultural engagement is not about getting consent to operate on a First Nation's traditional territory, but it is about much more, ultimately about shifting the culture of the company, creating long term relationships and working to address longstanding issues. With respect to relationships and having First Nation people working in industry or government, participants spoke to the need for these organizations

to become culturally appropriate workplaces. This is further evidenced by Indigenous participants who spoke to the difficulties they had experienced working in government or industry as an Indigenous person and that they were often framed as an ‘infiltrator’ or ‘outsider’ and as if they did not belong in their role because they were Indigenous. Training should also focus on these important issues to make work place environments safer for Indigenous people.

In following up with participants in this study about the overall findings and recommendations for education and training, participants highlighted the importance of this particular theme of fostering connectedness and thinking holistically. In particular, Larry McDermott suggested that developing this understanding was critically important for everyone and needed at all levels of education and in professional development training. In addition, Larry underscored the fact that Indigenous worldviews and knowledge systems characterize these values (i.e. holism) and that Indigenous approaches to thinking and relating have been (and continue to be) key targets of colonial policies and assimilation, which seek to eradicate these very ways of thinking and relating. It is essential to include this critical awareness in teaching people to become more connected and holistic in their thinking and being.

To me, this is significant especially given the focus of many environmental education programs, which hold at their core a focus on thinking holistically and developing connectedness to the natural world. Rather than uncritically adopting these goals, it is essential to see the long history of these philosophies and ways of relating and to acknowledge that they originate in Indigenous Knowledge systems. Furthermore, understanding that these knowledge systems and associated philosophies survived

because of the determination, sacrifice and dedication of Indigenous peoples is crucial in sharing this knowledge in an ethical way.

Evaluating Projects, Programs and Collaboration

Participants in this study suggested that the need to develop systems and timelines for evaluating collaborative work is of critical importance. Evaluation enables teams to understand whether or not they are achieving shared goals, meeting objectives and working effectively. Yet, participants in this study who work in government, highlighted that this is a key area where they fall short and noted that government often does not implement frameworks to evaluate their work. Providing practitioners with an understanding of the importance and purpose of evaluation as well as a suite of tools to implement an evaluation component in their projects is essential to monitoring progress and achieving shared goals.

One participant also spoke to the importance of evaluation in the context of environmental assessments and noted that oftentimes government does not go back to evaluate whether the impacts of projects were as expected, to gauge the effectiveness of mitigation efforts, or if there are elements which needed to change in their approach. As one participant from government stated, “we’re not going to be effective unless we know how we’re going to evaluate.” In other words, without knowing what to measure and how to measure it, one cannot determine if they have done what they set out to do.

Thus, including in professional development training the principles and approaches to program evaluation as well as encouraging participants to identify how to bring these approaches into their current projects is essential.

Communications: Advanced Facilitation and Conflict Resolution

Numerous participants in this study spoke to their need for advanced level training in facilitation and conflict resolution. Many individuals I spoke to noted that they gained these skills through experience in their careers, but that they wished they had greater opportunity to build these skills rather than learning as they go ‘on the job’. Offering advanced level facilitation and conflict resolution training specific to cross-cultural environmental contexts would address this gap in professional development training. Given the centrality of dialogue and difficult dialogue in IESS pedagogy, it is essential to ensure practitioners have excellent communication skills to support their cross-cultural work.

On this theme, practitioners noted that there was a dearth of facilitation and conflict resolution training that was tailored to the particular challenges of cross-cultural communication. Therefore, it is important to develop resources that support people who work cross-culturally and in particular, that work with Indigenous and western knowledge systems in their collaborative work. Recognizing the unique facilitation needs in cross-cultural contexts will enable the building of skills in this particular area and support practitioners in enhancing their ways of relating between Indigenous and western knowledge systems.

More broadly, the need for training to create and build both formal and informal networks where practitioners can share knowledge and experiences is also important. Through informal networks mentorship relationships can be developed and people can find resources and advice when they encounter difficulty in their cross-cultural work.

Creating Transformative Change

Many participants in this study spoke to the need for transformative change with respect to the ways in which Indigenous and non-Indigenous people relate to one another. Given the pervasiveness of racism and systemic racism, which have been articulated in this study, the need for transformative change becomes ever more apparent. Rather than mindlessly reproducing existing structures of oppression, it is incumbent upon all of us to find the ways we are able to influence this positive transformative change. As one participant in this study suggested, “I think certainly in this area and the people that I’ve worked with, a lot of people really want change, they don’t know how to go about getting it.” Therefore, professional development training should engage learners in such a way that enables them to see where and how they can create change in their own contexts and empowers them to take the necessary steps to create this change.

Creating collective plans of action can be fostered by many of the other areas for professional development identified in this section, such as by adopting a systems lens that fosters holistic thinking and enables people to see the leverage points for change within the systems that they are embedded. In achieving transformative change, many of the values that are central to IESS pedagogy need to be cultivated, such as honesty, truth, courage, responsibility and others. Transformative change can take place on multiple levels, first the self, then at the levels of family, community, or company and beyond to the Nation level. Having the ability to see the ways in which we can influence change at all levels is an important outcome of professional development training.

Target Audiences for Professional Development

Participants in this study recommended training for specific audiences, based on their personal experiences throughout their career, below I will outline the various target

audiences for professional development training in IESS contexts. Through discussions with the participants in this study and in reading scholarly literature for this study the following target audiences for this professional development training have emerged. The following section briefly discusses the suggested target audiences for training and the specific foci for each group.

Natural Resources Industry Representatives

Practitioners who work within the natural resource industries in Canada need to have baseline skills and knowledge in order to be able to appropriately and respectfully engage with the Indigenous Nations on whose territories they operate. Specific recommendations for training with this group include history of Indigenous and non-Indigenous relations, racism and oppression, unsettling the settler, protecting knowledge and intellectual property, evaluating projects, programs and collaboration, understanding worldviews, knowledge systems and ways of knowing, and communication especially with a focus on building skills that enable facilitation of difficult dialogue.

Government Staff and Politicians

Government staff and politicians have a unique role to play in cross-cultural collaboration, especially in terms of building nation-to-nation relationships with Indigenous Nations. Therefore, training on principles of relationship building and fostering nation-to-nation relationships, cultural awareness and sensitivity, history of Indigenous and non-Indigenous relations, racism and oppression, unsettling the settler, understanding community contexts and realities, creating transformative change, evaluating projects, programs and collaboration, protecting knowledge and intellectual

property, fostering connectedness and thinking holistically, and communication are essential for this group.

Indigenous Practitioners

Participants in this study noted that professional development training is needed within Indigenous Nations as well as for non-Indigenous practitioners. As one Indigenous participant noted we need to,

teach not just government folks but pass on some of that information among ourselves because there's been such a huge gap through the residential schools and many of the people that I work with, they've either attended residential schools, they're survivors or their parents attended residential schools.

Therefore, as part of on-going efforts toward reconciliation, providing resources for communities to share knowledge, engage in ceremony, build networks and resources as well as experience targeted training that meets their diverse needs is important. Many of the topics presented below are relevant to Indigenous learners and as with the other target audiences, the particular needs will vary depending on the individual. As a starting point, learning about knowledge systems, communication, racism and oppression, transformative change, principles of relationship building and fostering a nation-to-nation relationship, subject specific training, evaluating projects, programs and collaboration, and understanding worldviews, protecting knowledge and intellectual property, knowledge systems and ways of knowing are potentially useful professional development offerings.

Environmental Organizations' Staff

As has already been discussed elsewhere in this dissertation there is a need for professional development training within environmental organizations with respect to

cross-cultural collaboration with Indigenous peoples. Participants in this study recommended that staff in environmental organizations would benefit from training on the following topics, racism, oppression and microaggressions, history of Indigenous and non-Indigenous relations, Unsettling the Settler, cultural awareness and sensitivity, understanding community contexts and realities, understanding worldviews, knowledge systems and ways of knowing, protecting knowledge and intellectual property, communication: advanced facilitation and conflict resolution, creating transformative change and principles of relationship building and fostering nation-to-nation relationships.

University Faculty

Within the literature on microaggressions, scholars recommend that one means of addressing this type of racism is through the targeted training of university faculty and staff, especially given that they are one of the primary perpetrators of microaggressions in university settings. Therefore, professional development training that targets university faculty with respect to racism and oppression is needed. This would be well paired with unsettling the settler, history of Indigenous and non-Indigenous relations and cultural awareness and sensitivity training as well. Participants also suggested that it was important for university faculty to have a solid understanding of worldviews, knowledge systems, and ways of knowing and fostering connectedness and thinking holistically.

All University Students

Again, the literature on microaggressions suggests that incoming students each academic year should be required to participate in microaggressions training and also cultural awareness and sensitivity training. Ideally, every university student would learn

about the history of Indigenous and non-Indigenous relations and experience learning that enables them to unsettle if they are settlers. There is currently a movement across Canada to implement a mandatory course Indigenous Studies for every student (for example, Lakehead University is working toward this and the University of Winnipeg already has this as a requirement to graduate). I think it is a potentially powerful leverage point and would recommend that under ideal conditions this mandatory course would be tailored toward specific program areas, for example, how this is done for statistics courses where there are different statistics courses for different program areas. Creating a mandatory course that speaks to the particularities and highlights to relevance to each program area would be an effective and beneficial way to implement such mandatory learning.

Public School Teachers

Participants in this study shared stories of public school teachers who perpetuate microaggression and negative stereotypes of Indigenous people. At the same time, public school teachers are under increasing pressure to include more Indigenous voices, perspectives and content in their programming to support action items that have emerged from the TRC. I would recommend providing professional development training that targets public school teachers and supports them in bringing the action items from the TRC to life. In particular, training on racism and oppression, the history of Indigenous and non-Indigenous relations, unsettling the settler, cultural awareness and sensitivity training, and creating transformative change would be relevant to public school teachers across Canada.

Chapter Conclusion

This chapter presented the professional development recommendations from participants in this study and suggested subject areas and target audiences for professional development training. As I engaged with participants in interview discussions, each participant indicated that professional development was an important area that this study should respond to; each subsequent conversation uncovered additional training needs and target audiences depending on the participant. In some cases, the training suggested reflects the post-secondary recommendations in the previous chapter (for example with respect to advanced communication) but other areas of emphasis emerged that are distinctly for professional development training such as evaluation and protecting intellectual property. I have attempted to structure subjects for professional development into management subject areas that they could applied to professional development training contexts, which are typically characterized by resource constraints not present at the post-secondary level (such as the amount of time available for training and the need for training to link with work place objectives). However, the pedagogy, or approaches to teaching/learning, values, skills, attributes, and knowledges that have been articulated in chapter six apply to both post-secondary and professional development contexts and arguably could be applied to other levels and contexts as well (for example, primary school or non-formal learning environments).

As with IESS curriculum presented in chapter six, the professional development training is aimed at supporting learners through a transformative learning process that engages them deeply in personal self-reflection and group learning with respect to their own identity and worldview, their practice in the workplace and in cultivating supportive relationships as part of the learning process. Ideally, professional development training

that draws upon the courses suggested here would employ a cohort learning model that is grounded in experiential, on-the-land learning experiences for career professionals.

Chapter 10: Conclusions and Recommendations

Summary of Findings

This study engaged environmental practitioners to understand their experiences in environmental collaborations that bring together Indigenous and Western Knowledges (and people) toward addressing pressing environmental challenges. Through this research, I spoke with individuals who have been engaged in cross-cultural work for decades as well as practitioners who were relatively new to working cross-culturally.

Through our interview conversations we explored their experiences in these contexts and discussed the values, skills, attributes, approaches, roles, knowledges and challenges they utilize and encounter in working cross-culturally on environmental challenges (Figure 8). The values, attributes, knowledges, and skills identified by the participants in this study are described in detail in Chapter four.

Chapter five presents the roles and approaches participants discussed as central to working cross-culturally as well as the challenges they encountered in cross-cultural environmental collaboration. In reading through relevant literature, the roles identified in this study are reinforced with some additional roles emerging as also potentially helpful and relevant. For example, Rich (2012) explores the role of a ‘knowledge navigator’ suggested by Elder Albert Marshall and explains that a knowledge navigator is someone who supports learners in understanding the underlying purposes behind learning and creating a context for people to become lifelong learners within a process of ethical knowledge exchange. This links closely with the role of a knowledge interpreter or translator that has been identified in this work and with the concept of cognitive flexibility, which has been explored throughout this dissertation.

Chapter five also explores the insights from participants in this study with respect to what effectiveness and success looks like in cross-cultural environmental collaboration. Perspectives on how to measure and determine the success or effectiveness of cross-cultural environmental work are shared and include diverse approaches, from the role of third party auditors to facilitating group talking circles to ensuring everyone's voice is heard in evaluating the success or effectiveness of a project. Participants underscored the importance of evaluation, yet representatives from government acknowledged that this was an area where they felt government often fell short in their cross-cultural collaborations, particularly with respect to evaluating the implementation of projects.

Chapter six applied a critical theory lens to the data in this study and presented literature that resonates with the insights shared by participants in this study, particularly around participants' experiences with racism, which is applied to microaggression theory. Using critical theory, I have ascertained that racism and power dynamics continue to influence cross-cultural work in a number of powerful and important ways. Through this lens, I have determined that there is a strong need to deeply engage practitioners and learners on race and power issues, especially with respect to the importance of language use and microaggressions in cross-cultural contexts. This lens has also uncovered a powerful purpose behind IESS education and training: to dismantle colonial systems of domination and facilitate the return to nation-to-nation relationships between Indigenous and non-Indigenous peoples as described in original treaties and articulated by participants in this study.

In order to facilitate this broad transformation, training is needed for both practitioners working in the field as well as students learning in IESS contexts and also for people more broadly, not only in IESS contexts but also among the broader faculty/staff at post-secondary institutions and the wider Canadian public. Racism, power dynamics and the ongoing impacts of colonialism and settler colonialism have emerged as strong themes in this work, which call upon all of us to engage with and address regardless of the contexts in which we find ourselves. The participants in this study observed that racism is becoming more subtle and insidious, which was reinforced by exploration of scholarly literature in the field of microaggression theory. This indicates a need to deepen our commitments to addressing racism as it becomes less visible in the world around us. IESS pedagogy and the program design presented in this dissertation offer a way forward in addressing these timely issues and creating the transformative change needed in the world today.



Figure 7: Overview of Values, Skills, Attributes, Knowledges and Approaches in cross-cultural collaboration and IESS pedagogy identified in this study

Chapter seven synthesizes the information presented in chapters four to six and from relevant literature to further an articulation of IESS pedagogy by identifying the philosophical underpinnings and approaches to teaching and learning within the pedagogy. This chapter focuses on approaches to addressing racism in post-secondary learning environments, the importance of a dialogue-driven approach in IESS pedagogy, the need to center and support learners through experiential and on-the-land learning and the relevance of transformative learning theory as a guiding philosophy in achieving the goals and objectives of IESS pedagogy.

Chapter eight builds on the philosophical underpinnings presented in chapter seven and offers a program design flow and curriculum for post-secondary course and program development. Based on the results of this study, I have developed program design flow that could be adapted to multiple contexts, not only to post-secondary programs, but also professional development training or other contexts that readers may find relevant (for example, public school programs, informal leadership programs and so on). I have identified the ‘key ingredients’ such as time on the land and a cohort model, which are critically important in achieving the goals and objectives of IESS programming. Please see figure 6 in chapter 8, which illustrates the program design.

The courses proposed in this dissertation have been brought together with existing course offerings at Trent University in Appendix B. There, I present a matrix, which lists IESS courses, both existing and those suggested in this study, and the needed values, skills, and knowledges to illustrate that IESS programming can ensure graduates have the competencies needed to work in cross-cultural environmental contexts.

Chapter nine responds to the recommendations participants provided regarding professional development training needs and identifies course themes and target audiences for professional development training. These recommendations include potential activities and elements to include in exploring the diverse themes suggested by participants. Table 5 summarizes the topics and target audiences recommended for professional development training in this study.

Relevance of this work to the current historical moment

This study provides valuable insights about the experiences of environmental practitioners who work cross-culturally to address environmental concerns. These insights have formed a foundational understanding of how people work together across cultures on environmental challenges. From these insights, I have built on the work of scholars who came before me and furthered the articulation of an IESS pedagogy, which has been applied to an educational program design for both post-secondary and professional development contexts. This work offers several unique contributions, particularly, the proposed IESS program flow and course theme suggestions and the application of microaggression theory to cross-cultural environmental contexts. This work builds on the discipline of environmental education by presenting approaches to bringing knowledges together in EE and identifying the problematic ways that EE can operate to perpetuate racism and settler colonialism.

Additionally, including a critical theory lens has enabled me to uncover power and racial dynamics that underscore cross-cultural environmental contexts. This work builds on the current understanding of microaggressions in the literature by identifying additional contexts in which microaggressions are common, namely, environmental collaborations that bring together Indigenous and non-Indigenous people.

In carrying out the research for this study, I have become convinced of the relevance of this work to our current historical moment and for the findings of this study to be applied beyond the contexts explored in this research. I believe that many of the central themes that have emerged from this work have broader applicability. This is especially true with respect to the themes that emerged through the application of the critical theory lens, which enabled me to identify and highlight the on-going racism and

oppression that continues to be perpetuated by many well-intentioned people across government, industry, the not-for-profit sector and at the post-secondary level towards Indigenous peoples in Canada. Additionally, the impacts of on-going colonialism and settler colonialism have broader connections beyond the cross-cultural contexts explored in this study suggesting the need to engage practitioners in other fields as well as Canadians more broadly in exploring their role in perpetuating the oppression of Indigenous Nations vis-à-vis settler colonialism.

The IESS pedagogy described in this dissertation could also be more broadly applied, for example, in public education for younger age groups to support learners in developing the skills, values, and attributes that participants in this study have identified as important. Indeed, skills like patience and kindness or the attributes of authenticity and curiosity can be cultivated at any life stage and may be more effectively developed beginning at a younger age.

Importance of illuminating colonialism and settler colonialism

Throughout this dissertation I have attempted to highlight that colonialism and settler colonialism continue to be hidden and denied not only within cross-cultural collaborations in environmental contexts, but also more broadly in Canadian society. This is an important insight, as it calls upon each of us to find ways to illuminate, examine and work to understand these systems of dominance and oppression and to find ways of eradicating these negative ways of relating between settlers and Indigenous people. This insight also was an important underlying factor in the development of the course themes and approaches in the proposed IESS program flow in order to enable

IESS pedagogy to contribute to a continual uncovering and dismantling of colonialism, settler colonialism and racism.

When those in power deny the impacts of their dominance and racism it oversimplifies racism and its effects, while also maintaining a centering of settler experiences (Montgomery, 2013). As Montgomery (2013) explains,

These denials effectively obscure the experiential knowledge of those subjected to the violence of racism and silence those who place racism not only in the heads of individual bigots, but in actual material/bodily conditions and lived consequences. These sorts of denials are captured in statements like, ‘I think it all boils down to fear’, ‘there is no place for this hatred in our schools’, or ‘racism is just another way of saying ignorance.’ Each of these sorts of statements represent the common notion of racism as that which resides merely in people’s heads and not in the material conditions of the social world and they imply, moreover, that only intellectually, morally, and socially, or psychologically flawed people ‘do’ racism. (p. 8).

There are several important ideas here, first that it is important to illuminate and educate about systemic racism and its impacts and to acknowledge, as is reflected in the microaggressions theory work shared in chapter six, that everyone is capable of perpetuating racism through their language and actions. By acknowledging the widespread nature of racism and microaggressions and emphasizing that oftentimes this type of racism is subtle and unintentional, it removes some of the taboo currently associated with calling out racism and racist speech or actions. It is critically important that we develop capacity to sit with discomfort and to engage in deep self-reflection toward illuminating the ways in which each of us may be perpetuating racism through the words/phrases we use, how we communicate with one another, the materials we use in our classrooms and collaborations and so on. It is crucial that we begin to see racism not

only as ‘out there,’ something that is reflected only in atrocious actions and statements by overtly racist people/groups, but also the subtle forms, which participants in this study noted that they experience regularly in their workplaces, schools, and daily lives. The IESS pedagogy articulated here attempts to make space for this type of reflection and exploration of the world as a means of addressing these very issues and resisting the trend to deny and hide these realities.

Understanding and Critiquing Settler Worldview and Identity

Central here is the need to identify and make visible the problematic elements of settler worldview and identity. By addressing and deconstructing the mis-knowings about the origins of the Canadian state, the central values and beliefs of settlers and how they may be contradictory, and encouraging a vigorous examination of our own histories and complicity in settler colonialism we can work toward improved relationships and collaboration between Indigenous peoples and settlers. In turn, working from a place of deep self-awareness, relationships and collaborations will be founded on authentic engagement and set the stage for positive transformation in the ways in which Indigenous and non-Indigenous people relate. The IESS pedagogy presented here aims to build this awareness through a series of courses that are designed to first introduce these topics and then build upon one another to deepen the critique and analysis of settler colonialism and the relationship between colonialism and environmental issues.

This theme has relevance to those who participate in cross-cultural environmental collaborations and challenges, as Indigenous participants in this study noted that oftentimes the most difficult collaborations took place between Indigenous Nations and people and environmental organizations. Lynne Davis (2011) has written about cross-

cultural environmental collaborations and noted that central settler beliefs, such as conceptions about ‘nature’ and ‘wilderness’ that oftentimes motivate environmental campaigns, for example, campaigns that advocate for the creation of parks and protected areas have “mobilized resistant discourses as First Nations, such as the Heiltsuk Nation, continue to articulate ownership and control over their traditional territories” (p. 12).

Davis notes that collaborations can be characterized by conflict and confrontation as well as by collaboration. In sharing the results of this research and engaging environmental organizations in professional development training that increases the awareness of organizational staff and leadership, perhaps more relationships between Indigenous peoples and environmental organizations can be characterized as collaborative and respectful rather than confrontational.

The Reconciliation Agenda

The Canadian government continues to articulate the importance of a reconciliation agenda and make public statements about the need to renew cross-cultural relationships with Indigenous Nations. Within this call, the Trudeau administration has suggested the importance of the United Nations Declaration on the Rights of Indigenous People (UNDRIP) and working at a nation-to-nation level on issues of shared importance. Yet, Trudeau’s actions belie his words as he has approved several controversial natural resource projects without the consent of the Indigenous Nations on whose territories those projects are proposed. Additionally, the Canadian state has noted that while UNDRIP continues to be an important guide for engaging with Indigenous Nations, that there are elements to the declaration, which the Canadian state will not support, particularly Article 32, which relates to the rights of Indigenous Nations and

people to provide free, prior and informed consent regarding any natural resource project on their traditional territories (United Nations, 2007). It is important to be critical of government efforts toward reconciliation, especially when the actions of the Canadian state undermine the good words they have shared about the importance and need to improve relationships.

Indigenous Nations should lead reconciliation efforts

Reconciliation efforts should center on the goals and interests of Indigenous Nations and not on the objectives of the settler state. Leanne Simpson (2011) has written about the problematic ways in which the Canadian government has attempted to control approaches to reconciliation, which run counter to Anishinaabeg beliefs about reconciliation. From an Anishinaabeg perspective, reconciliation and restorative justice must stem from the guidance of those who have been wronged, not be driven by those who perpetrated injustices (Simpson, 2011).

Over the years I have heard many Indigenous colleagues speak at conferences and the message is clear, without returning lands and restoring authority to First Nations, reconciliation is not possible. Therefore, in our environmental collaborations, fundamental goals and approaches should aim toward returning lands and restoring self-government and self-determination of Indigenous Nations and not toward maintaining unequal power relationships between settlers and Indigenous peoples.

Stories of suffering and learning difficult truths

The Truth and Reconciliation Commission has made important strides in raising awareness amongst Canadians about the nation's colonial history and the horrific results of assimilation attempts, particularly the residential school system. Scholars have begun

to explore this process of reconciliation and awareness building and have suggested some concerns, which I will share here, not to discredit the important work of the TRC but to add to the discourse and in particular to highlight the complexity of engaging with the difficult stories that have emerged from the TRC process. Roger I. Simon has voiced the concern that in engaging with TRC stories, the Canadian public can paradoxically, confirm its own 'humanitarian character', and smooth their own ego as they appropriate the pain and suffering of Indigenous peoples he writes,

I particularly want to emphasize the problems associated with what has widely been acknowledged as the 'too bad, so sad' syndrome. One implication of this syndrome is that it feeds the commodification of stories of suffering. Essentially this means that when non-Aboriginal Canadians express sorrow and sympathy as a response to the anguished testimony of former residential school students, they also confirm their 'own humanitarian character' and consequently end up feeling good about feeling bad. While ethical questions can certainly be raised as to the impropriety of appropriating stories of another's pain, this is not the heart of the problem. When the 'too bad, so sad' syndrome defines a response to stories of suffering, injury is recognized, but there is a 'splitting off' of any responsibility for the injury or injured. This splitting off then creates conditions that enable a justified refusal to give up any of the structural privileges accumulated over the last 250 years.

This quotation indicates that settlers need to be extremely careful and self-aware with how they engage in reconciliation and the stories generously shared by survivors of settler colonial violence, whether with respect to residential schools in particular or other areas, such as on-going persecution by police and conservation officers as shared by one Elder in this study. We must ensure that we do not use our awareness of injustice as a salve on our own suffering or as a move to innocence, thereby removing our implication in systems of oppression or the need for personal actions and sacrifice in order to foster

justice. Being moved by injustice or feeling regretful does not itself constitute reconciliation, though it may be an entry point from which to build a deeper and more thoughtful engagement with how we as individuals can be a part of a greater process of reconciliation.

Briefly, I would like to highlight the widespread experience of settler guilt in learning about colonial history and on-going settler colonial injustice. It is common for settlers to fall into paralyzing guilt when these difficult truths are encountered. It is therefore crucially important that people are supported as they move through this learning, to ensure that they do not embark on a journey that they never complete. As Tuck and Yang (2012) write about the desire for settlers to be made innocent and therefore to become free of their guilt,

Directly and indirectly benefitting from the erasure and assimilation of Indigenous peoples is a difficult reality for settlers to accept. The weight of this reality is uncomfortable; the misery of guilt makes one hurry toward reprieve (p. 9). In so doing, settlers engage in specific behaviours designed to assuage their guilt and place themselves in positions of innocence, such as claiming an Indigenous ancestor or falsely equating all forms of oppression as equal. I encourage readers to explore this work in more detail to ensure they avoid engaging in problematic behaviours that only seek to alleviate their own feelings of guilt, rather than seeking to transform the current systems of oppression that continue to negatively impact on the day-to-day lives of Indigenous people.

Protecting knowledge in collaboration and within a global knowledge economy

It is important to reflect upon the insights and challenges identified in this study in a context beyond the cross-cultural environmental collaborations explored in this research

to a wider view with respect to knowledge exchange and collaboration. In particular, this relates to the vital need to protect knowledge and Knowledge Holders from exploitation. It is becoming common or even trendy, for governments and non-Indigenous practitioners to articulate the importance of learning from Traditional Knowledge or Traditional Ecological Knowledge for the value it offers their agendas. I have heard governments and scientists speak about the need to engage and incorporate Indigenous Knowledge into western ways of understanding environmental challenges or for the benefits it will offer 'us' in working to address a variety of environmental challenges. Oftentimes, this is framed around the need to better our understanding or validate scientific or Indigenous Knowledge through one or the other knowledge system. Yet, this presents many issues and concerns, which will be briefly discussed here.

Firstly, it is crucial to acknowledge that IK and WK are not yet on equal footing, within the academy or elsewhere and that IK systems and approaches remain on the periphery in most contexts within a global knowledge economy. Being in a marginalized position can create a situation where IK is vulnerable and that Knowledge Holders may not have the control over their knowledges that they would like. This can endanger knowledge systems and result in knowledge being appropriated by non-Indigenous people. Global knowledge economies that are supported and enhanced through the role of post-secondary learning institutes have created a context where knowledge has become commodified, which is a key issue identified by scholars in Indigenous Studies.

Therefore, in implementing the IESS program or courses here, it is important to ensure that Indigenous Nations Knowledge Holders are involved as equal partners in developing and implementing IESS-type education.

Hingangaroa Smith's (2009) chapter, *Protecting and Respecting Indigenous Knowledge* illuminates many issues with the commodification of knowledge and the growing interest in IK within the global economy. One central critique is the focus on the individual within the global economy, as opposed to the collective. He writes,

The new free-market economy simply privileges the already privileged – the rich get richer. In this new economic structure, the rights of the individual are paramount. This concentration on the development of the 'competitive individual' who has 'consumer sovereignty' has tremendous implications for a people whose culture is embedded in the collective. (Hingangaroa Smith 2009, p. 216)

Hingangaroa Smith (2009) argues that this runs counter to Indigenous ways of being, while at the same time signaling an important challenge to Western knowledges within global knowledge economies. This is an important lesson for Western thinkers, who ought to begin to critique their own ways of knowing and being (i.e valuing the individual over the collective) as they confront IK within knowledge economies, especially in the context of decolonizing and efforts to dismantle colonialism. This also illuminates the ways in which the pedagogy proposed in this study can counter these forces by honouring the collective and centering the learner, rather than commodifying knowledge as part of the learning process.

Hingangaroa Smith argues that many facets of the global knowledge economy represent "new forms of colonization" and that in locations where colonial forces have physically withdrawn that economic forces and other new forms of colonization are still influencing those nations. (Hingangaroa Smith 2009, p. 215) It is critical for practitioners who work cross-culturally to build awareness of these new forms of colonialism and to

find ways to counter them. Participants in this study noted that government policy reflects this push toward economic development and also indicated that this was problematic.

Within Canada, intellectual property is acknowledged as a fundamental human right, yet it has also been observed, “as awareness and use of traditional knowledge continue to grow in mainstream policy and economic sectors, so do the incidences of its misuse and misappropriation” (Simeone 2004, p. 3). In fact, Simeone (2004) illuminates that existing intellectual property laws in Canada are “seen to help corporate interests and entrepreneurs lay claim to indigenous knowledge without appropriate acknowledgement or compensation for the communities who have developed that knowledge.” (Simeone 2004, p. 4) Indeed, this new form of colonialism that Hingangaroa Smith describes is alive and well in Canada. Therefore, it is incumbent upon environmental practitioners and educators in Canada to advocate against these policies and to work toward legislation that protects IK and Indigenous Nations from the colonizing forces of corporations and the global economy vis-à-vis the use and ‘sharing’ of knowledge within cross-cultural collaboration and global knowledge economies. These efforts must stretch beyond the mere development of legislation to its adoption and meaningful implementation while at the same time working with Indigenous Nations to ensure their knowledges are protected within the global knowledge economy (Simeone 2004).

Given the current imbalance between IK and Western knowledges within global knowledge economies and the ways in which knowledge sharing can be a manifestation of colonialism, a key aspect of this work is to find ways to rebalance these knowledges and to ensure that IK is seen as equal to other knowledges, such as Western science and

can be protected by Knowledge Holders. Haudenosaunee scholar Dan Longboat suggests that as non-Indigenous thinkers begin to truly understand IK, that this rebalancing will naturally take place. He explains that scientists and other Western thinkers have been trained to see phenomenon in isolation in contrast to Indigenous ways of knowing, which see holistically and relationally. As individuals begin to see the world in a more holistic way, they will also begin to see IK as being on an equal platform with Western ways of knowing, such as science (Personal Communication 2014). Therefore, implementing the courses suggested in chapters seven and eight can be one way to support the development of holistic thinking and create a context where IK is protected and seen as valid systems of knowledge without needing to be validated by western approaches to knowledge.

Future Research Needs

In conducting the research for this study, a number of future research needs became evident. The future research needs are reflected of the overarching themes that emerged in this study. This section will briefly describe the areas of research that are important to explore in future studies in order to better understand cross-cultural collaboration in environmental contexts.

Exploration of roles and deeper understanding of competencies for environmental practitioners in cross-cultural environmental collaboration

In reflecting on the first research question for this study, there are elements that warrant further exploration. In particular, the various roles that contribute to effective collaboration should be more deeply explored. This element was not a central focus for this study, however a number of specific roles emerged from our discussions, which indicate that this is a fruitful area to examine and provide insights on how environmental

practitioners can work together to achieve their shared goals. Exploring the diverse and many roles in these contexts will also support the further elucidation of the skillsets and abilities required in these contexts. Bringing these roles together with practice and on-the-ground projects will enable a clearer and stronger picture of the competencies required by practitioners who work on cross-cultural environmental initiatives and arguably, lead to more effective collaborations and thus stronger solutions to environmental challenges.

Measuring effectiveness of IESS Pedagogy

With respect to the second research question explored in this study, it will be helpful to research and explore the application of IESS pedagogies. Do the methods of teaching and learning within IESS pedagogy achieve the goals and objectives of the pedagogy? Does the pedagogy foster the values, skills, attributes, knowledge and abilities that were identified in this study? Are there additional methods that ought to be added to IESS pedagogy in order to strengthen the pedagogy?

Indigenous approaches to evaluation

Given that IESS pedagogy is rooted in IK and Indigenous approaches to relating and teaching/learning, I think it would be beneficial to better understand and implement Indigenous approaches to program evaluation both to apply to teaching and learning contexts as well as to evaluating cross-cultural collaborations. Moving away from western approaches that primarily focus on an ‘outcome’ driven approach to finding other means of evaluating shared work will be important.

Exploring experiences of personal transformation in IESS pedagogy

Alongside implementing research and evaluation within IESS contexts in order to determine the effectiveness of IESS approaches is the need to explore learner experiences with IESS pedagogy. Exploring the experiences of learners in these contexts, specifically with respect to their experiences of personal transformation as part of their learning journey will inform approaches to teaching and learning while also identifying challenges in transformative learning in IESS. It will also be important to research and explore learner experiences with unsettling. How do learners move this process? What are the outcomes of their learning journey? How do they take what they have learned and apply it to create positive change in the world? These research questions would be helpful in post-secondary contexts as well as professional development training. Researching and contributing to an overall better understanding of the efficacy of the post-secondary and professional development training that implements IESS pedagogy will help refine and strengthen the pedagogy over time and ensure that programming is meeting its goals and objectives.

Experiences of microaggressions in cross-cultural environmental collaboration

It is vital to better understand the experiences of people who work cross-culturally, in particular in terms of the relevance of microaggressions theory to environmental collaborations. This study addresses a gap in this theory by beginning to examine and explore experiences of microaggressions in environmental collaborations, but a study with this as a specific aim will be better positioned to explore such experiences in depth and generate material that illuminates how microaggressions manifest in these contexts specifically. Researching microaggressions in the context of law enforcement, conservation officers, and game wardens will be an important

contribution to research in this area and can be used to inform professional development training for those specific target groups. At the same time, it will be helpful to conduct more research exploring microaggressions within the public and post-secondary learning systems. Delving deeper into the power dynamics at play in these contexts, as well as the types of microaggressions that are common will help identify specific interventions that can be implemented to help alleviate microaggressions in these contexts.

Exploring settler identity

Deepening collective understanding of settler worldviews and beliefs will provide helpful insights to practitioners and educators who work to include unsettling elements in their programming. This can contribute to overall decolonizing across Canadian society and support other goals such as improving relationships between Indigenous and non-Indigenous people and moving toward true reconciliation.

Suitability of the study design and overall approach

In this section, I will briefly reflect upon the strengths and limitations of this dissertation research. Complexity theory methodology inspired the approach to this study. This complexity approach encouraged me to include multiple perspectives and knowledge systems in this study. In creating the design for this study, I also drew upon Indigenous scholarship in the field of Indigenous research and attempted to conduct this research in a way that was respectful of participants in the study and enabled participants to be in control of their contributions to the work. A central element of this was to ensure my research was grounded in respectful relationships with the participants involved in this research.

Beginning with my relationships as an approach for finding research participants created a context where conversations were characterized by a high degree of trust and openness and also provided space for myself and the research participants to reflect upon projects we have collaborated on in the past. I believe this gave me a deeper, richer understanding the contexts the participants described in our conversations and also ensured that I was aware of many of the nuances of the specific contexts participants described. Additionally, I think this created a space where participants felt comfortable to share in ways they may not have without having an existing relationship with the researcher.

Participants shared that they felt the process was helpful for their own reflection on their practice and also created space for them to discuss the themes of this research with their other project partners. As findings emerged from the study and were shared with participants, several participants indicated that they would be using the suggestions, themes, their quotations or other materials from this study in their collaborative work. My intention in carrying out this research was to create material that would be useful to my colleagues and other practitioners and to me, the immediate applicability of materials from this research to the research participants indicates that this goal was achieved.

I was limited by a small budget for traveling and meeting with participants. This resulted in working with practitioners within the Great Lakes region. It would be helpful and instructive to explore similar research questions in other regions to better understand the ways in which different territories, knowledge systems and practitioners may be working cross-culturally outside of the Great Lakes region.

My positionality influenced the design of this study as well as the way I went about carrying out the research, who was involved and how I analyzed and made meaning out of the research results. As a non-Indigenous person, I feel a strong sense of responsibility to respond to the critiques from Indigenous scholars and practitioners and take this up in my work. Therefore, it is important to me to take up critical theory analysis as a key part of my work in order to work to embody the responsibilities I have to the participants in this research and also to the Indigenous Nations on whose territory I reside. This focused my critical theory analysis on elements that I am implicated in and responsible to, such as settler colonialism, racism, and the other power dynamics that were identified in this study. At times in this dissertation, I speak more to a non-Indigenous audience, with the objective to engage fellow settlers in an on-going dialogue about these crucial issues of our time.

Concluding Thoughts

My hope is that this dissertation will be a helpful resource for educators and environmental practitioners who are working in the fields of environmental education, western sciences, Indigenous studies, and in other disciplines that are explicitly focused upon addressing the pressing environmental issues of our time. Through this study, I have worked with a group of diverse participants to identify key values, attributes, skills, approaches, and knowledges that can contribute to effective and successful cross-cultural collaborations between Indigenous and non-Indigenous people in environmental contexts. The guidance offered here may be applied across contexts and has included other important areas of insight such as helpful roles played by people in cross-cultural contexts. Given the urgency of many of the environmental and social justice challenges

we currently face, I urge practitioners to take up the recommendations here however they are able within the contexts that they find themselves.

For me, I plan to continue working with government, industry, in the environmental non-profit sector and within educational institutions to forward these environmental and social justice agendas and work toward justice and peace for Indigenous Nations and all life in Creation. This will happen tangibly, through implementation of professional development training and the delivery of post-secondary courses and training proposed here.

It is with hopeful optimism that I conclude this dissertation. I carry with me a deep belief in the goodness of human beings to turn toward that which challenges them, which makes them uncomfortable and to find ways of improving their world by confronting injustice and oppression. Together, we can create the transformative change needed to cultivate a more peaceful, just and healthy world for all. And as Dan Longboat often says, “now let’s roll up our sleeves and get to work!”

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Appendices

Appendix A: Interview Guide

These questions are merely a guide to the discussion, additional probes may be used and words/terminology in each question may shift depending on the participant. Depending on the participant, some questions may not be asked.

Personal Background/Experience

1. Please tell me about yourself and how you came to be involved in this work
 - Why do you do this work?
2. Can you describe some of the environmental/natural resource management projects you have been involved in that brought together people with diverse perspectives and backgrounds?
3. How would you describe your role and experience in these contexts?
4. What have your experiences been like in these cross-cultural contexts?
5. What are some of the challenges you encounter in doing this work?
 - How important is the group dynamic?
 - How do you address and resolve conflict in these situations?
 - Can you tell me about a time things didn't go well in collaboration?
 - How do you address negative emotions? (anger, guilt, fear, misunderstanding)
 - How do you deal with being uncomfortable with what other participants are saying/doing?

Skills, Values, Approaches

6. What skills do you find useful in your role?
7. What approaches are central to working effectively in cross-cultural environmental contexts?
 - How do you know if the work is effective? Successful?
 - What does 'effective' or 'successful' look like in these contexts?
 - How do you ensure group processes are fair? That everyone's voice is heard?
8. What values drive your involvement in this work?
 - Do you think it is important to develop 'standards of behaviour' or 'ground rules' among all the participants in the project? If yes, how do you do this? If not, why not?
9. What skills, knowledge or abilities do you wish you had that you think would make your job easier?
 - What would you say to someone who is new to these contexts?
 - What do you think people new to these contexts 'need to know' to engage effectively?

Bigger Picture Connections

10. Has there been any moments (an 'ah-ha' moment) in your engagement with this work where you had a shift in your thinking?
 - Please tell me about how your thinking changed and what you think led to that shift

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Program Coordinators

Chair of the Department of Indigenous Studies

D. Newhouse, (Onondaga), BSc, MBA (Western)

Director of the Trent School of the Environment

S. Watmough, BSc (Liverpool Polytechnic), PhD (Liverpool John Moores)

Director of the Program

D. Longboat, Roronhiakewen (Haudenosaunee), BA (Trent), MES, PhD (York)

Professors

See faculty listings in Environment and Indigenous Studies

Indigenous Environmental Studies/Science at Trent University is an innovative and multidisciplinary program offered jointly by the School of the Environment and the Department of Indigenous Studies. It brings together principles of both Indigenous knowledge and Western science. Instruction integrating these approaches will provide students with the necessary knowledge and skills, including both critical and integrative thinking abilities, to begin to address the complex environmental problems facing Indigenous communities, governments, business, industry, research, and society in general. The foundation upon which the program is based recognizes both the strengths and limitations of any single perspective, and seeks to develop interactive and integrative thinking to address environmental, health, and social issues. Learning and problem-solving are focused on benefiting both Indigenous and non-Indigenous communities.

Notes

- Students who have earned the Diploma in the Indigenous Environmental Studies/Science Program may apply for admission to the BA or BSc degrees. Credits earned in the Diploma program are transferable to the BA and BSc degrees.
- Indigenous students seeking admission to this or other University programs should contact the Aboriginal enrolment advisor in the First Peoples House of Learning to inquire about getting special assistance with the admission process.
- There is no option to pursue a joint-major in Indigenous Environmental Studies/Science and Indigenous Studies or a joint-major in Indigenous Environmental Studies/Science and Environmental & Resource Science/Studies.

BACHELOR OF ARTS PROGRAM IN INDIGENOUS ENVIRONMENTAL STUDIES

- In addition to the program requirements listed below, students must satisfy the University degree requirements (see p. 11).
- IESS 3634H, IESS 4630H, INDG 4050H, and an Indigenous language course are recommended for the degree.

The single-major Honours program. 20.0 credits including the following 10.5 credits:

- 5.5 IESS credits consisting of IESS 1001H, 2601Y, 3631H, 3632H (or 3630Y), 3730Y, 4730Y, and 4740Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 2.0 INDG credits consisting of INDG 1000Y and 3813Y
- 0.5 credit from BIOL-ERSC 2260H or ERSC 2240H
- 1.0 ERST and/or ERSC credit at the 3000 level or beyond in addition to the above
- 0.5 ERST, ERSC, or INDG credit in addition to the above

The joint-major Honours program. 15.0 credits including the following 7.0 credits:

- 1.5 IESS credits consisting of IESS 1001H and 2601Y
- 1.0 IESS credit from IESS 3631H and 3632H (or 3630Y) or 3730Y
- 1.0 IESS credit from IESS 4730Y or 4740Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 1.0 INDG credit consisting of INDG 1000Y
- 0.5 credit from BIOL-ERSC 2260H or ERSC 2240H
- 1.0 ERST, ERSC, or INDG credit at the 3000 level or beyond in addition to the above

The single-major General program. 15.0 credits including the following 7.5 credits:

- 1.5 IESS credits consisting of IESS 1001H and 2601Y
- 1.0 IESS credit from IESS 3631H and 3632H (or 3630Y) or 3730Y
- 1.0 IESS credit from IESS 4730Y or 4740Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 1.0 INDG credit consisting of INDG 1000Y
- 0.5 credit from BIOL-ERSC 2260H or ERSC 2240H
- 1.0 ERST, ERSC, or INDG credit at the 3000 level or beyond in addition to the above
- 0.5 ERST, ERSC, or INDG credit in addition to the above

The joint-major General program. 15.0 credits including the following 6.0 credits:

- 1.5 IESS credits consisting of IESS 1001H and 2601Y
- 1.0 IESS credit from IESS 3631H and 3632H (or 3630Y) or 3730Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 1.0 INDG credit consisting of INDG 1000Y
- 0.5 credit from BIOL-ERSC 2260H or ERSC 2240H
- 1.0 ERST, ERSC, or INDG credit at the 3000 level or beyond in addition to the above

BACHELOR OF SCIENCE PROGRAM IN INDIGENOUS ENVIRONMENTAL SCIENCE

- In addition to the program requirements listed below, students must satisfy the University degree requirements (see p. 11).
- IESS 3634H, IESS 4630H, INDG 4050H, and an Indigenous language course are recommended for the degree.
- There is no option to pursue a joint-major in Indigenous Environmental Studies/Science and Indigenous Studies or a joint-major in Indigenous Environmental Studies/Science and Environmental & Resource Science/Studies.

The single-major Honours program. 20.0 credits including the following 11.0 credits:

- 5.5 IESS credits consisting of IESS 1001H, 2601Y, 3631H and 3632H (or 3630Y), 3730Y, 4730Y, and 4740Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 1.0 INDG credit consisting of INDG 1000Y
- 0.5 credit from BIOL 1020H, GEOG 1040H, or ANTH 1010H
- 2.0 credits from ERSC 2220H, ERSC 2230H, ERSC 2240H, BIOL-ERSC 2260H, or GEOG-BIOL-ERSC 2080H
- 1.0 ERSC credit at the 3000 level or beyond in addition to the above
- 14.0 science credits are required for the Honours degree, including 1.0 MATH credit

The joint-major Honours program. 20.0 credits including the following 8.0 credits:

- 4.5 IESS credits consisting of IESS 1001H, 2601Y, 3631H and 3632H (or 3630Y), 3730Y, and 4740Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 1.0 INDG credit consisting of INDG 1000Y
- 0.5 credit from BIOL 1020H, GEOG 1040H, or ANTH 1010H
- 1.0 credit from ERSC 2220H, ERSC 2230H, ERSC 2240H, or BIOL-ERSC 2260H
- 14.0 science credits are required for the Honours degree, including 1.0 MATH credit

The single-major General program. 15.0 credits including the following 8.0 credits:

- 4.5 IESS credits consisting of IESS 1001H, 2601Y, 3631H and 3632H (or 3630Y), 3730Y, and 4740Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 1.0 INDG credit consisting of INDG 1000Y
- 0.5 credit from BIOL 1020H, GEOG 1040H, or ANTH 1010H
- 1.0 credit from ERSC 2220H, ERSC 2230H, ERSC 2240H, BIOL-ERSC 2260H, or GEOG-BIOL-ERSC 2080H
- 11.0 science credits are required for the General degree, including 1.0 MATH credit

The joint-major General program. 15.0 credits including the following 6.0 credits:

- 3.5 IESS credits consisting of IESS 1001H, 2601Y, 3631H and 3632H (or 3630Y), and 3730Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 1.0 INDG credit consisting of INDG 1000Y
- 0.5 credit from BIOL 1020H, BIOL-ERSC 2260H, GEOG 1040H, ANTH 1010H, ERSC 2220H, ERSC 2230H, or ERSC 2240H
- 11.0 science credits are required for the General degree, including 1.0 MATH credit

Students who have fulfilled the requirements for a single-major or joint-major BA or BSc Honours degree in another subject may apply for a minor in Indigenous Environmental Studies/Science if they have successfully completed the courses listed below.

The minor in Indigenous Environmental Studies/Science consists of the following 6.0 credits:

- 3.5 IESS credits consisting of IESS 1001H, 2601Y, 3631H and 3632H (or 3630Y), and 3730Y
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 1.5 INDG credits consisting of INDG 1000Y and 4050H

DIPLOMA IN INDIGENOUS ENVIRONMENTAL STUDIES/SCIENCE

The program also offers a Diploma, which is intended for students of Indigenous ancestry who may be interested in specific educational opportunities or a pathway to a university degree.

- The Diploma is a two-year program open to students who have the equivalent of Ontario Grade 12 or qualify as mature students.
- The Diploma will be awarded upon successful completion of the program. A Trent University transcript will identify all courses undertaken and grades received.
- Students who have earned the Diploma may apply for admission to the BA or BSc program. Credits earned in the Diploma program are transferable to the General or Honours BA and BSc degrees.
- Indigenous students seeking admission to this or other University programs should contact the Aboriginal enrolment advisor in the First Peoples House of Learning to inquire about special assistance with the admission process.

Courses

- INDG 1011H and 1012H provide the academic skills, attitudes, strategies, and mutual support systems that students need to be successful in a university environment.

The following 7.5 credits are required to complete the program:

- 2.0 IESS credits consisting of IESS 1001H, 2601Y, and 3631H
- 3.0 INDG credits consisting of INDG 1000Y, 1011H and 1012H (or 1010Y), 1500H, and 1510H
- 1.0 ERSC credit consisting of ERSC 1010H and 1020H (or 1000Y)
- 0.5 credit from BIOL-ERSC 2260H or ERSC 2240H
- 1.0 credit from ERST-CAST 2520H, ERST-CAST 2525H, or CAST-ERST-GEOG-INDG 2040Y

Please consult the academic timetable, available through myTrent, for information on courses that will be offered in 2016–2017, including when they will be scheduled.

- » **IESS 1001H: Foundations in Indigenous Environmental Studies and Science**
Introduces students to the foundational approaches, philosophies, values and methods used in Indigenous Environmental Studies. Teaching methods include lectures, written resource materials, classroom discussions, and experiential learning.
- » **IESS-ERSC-INDG 2150H: Environmental Assessment Techniques for Indigenous Communities (Sc) (see Environmental & Resource Science/Studies)**
- » **IESS-INDG-ERST 2601Y: Introduction to Indigenous Environmental Studies (see Indigenous Studies)**
- » **IESS-ERST-INDG 3631H: Issues in Indigenous Environmental Studies (see Indigenous Studies)**
- » **IESS-ERST-INDG 3632H: Global Issues in Indigenous Environmental Studies (see Indigenous Studies)**
- » **IESS-ERST-INDG-SAFS 3634H: Introduction to Indigenous Food Systems (see Indigenous Studies)**
- » **IESS-ERSC/ERST-INDG 3730Y: Indigenous Peoples' Health and the Environment (see Environmental & Resource Science/Studies)**
- » **IESS-INDG-ERST 4630H: Indigenous Environmental Research Protocols and Ethics (see Indigenous Studies)**
- » **IESS-INDG-ERST 4730Y: Sustainable Indigenous Communities (see Indigenous Studies)**
- » **IESS-INDG-ERST/ERSC-NURS 4740Y: Critical Investigations in Indigenous Peoples' Health and the Environments (see Indigenous Studies)**