

Research Article

Navigating the Shifting Landscape of Engagement in Northern Research: Perspectives from Early Career Researchers

Anita Lafferty
University of Alberta

Jared Gonet

Renewable Resources, University of Alberta; Yukon University

Tina Wasilik
University of Alberta

Lauren Thompson University of Alberta

Selina Ertman
University of Alberta

Sasiri Bandara

Independent Researcher, Edmonton

*All authors have contributed equally to this paper and are considered co-first authors.

Abstract: An examination of research in northern Canada and its ties to extractive, colonial practices has been highlighted in recent years, alongside heightened expectations for community- and Nation-engaged practises. Here, we explore the diverse ways that northern-focused early career researchers (ECRs), from a range of faculties, life experiences, and disciplines, engage with the communities and Indigenous Nations they work in and, more broadly, the knowledge they have gained from conducting research in the North. Scholars in the fields of education, anthropology, and renewable resources from the University of Alberta share their experiences to discuss I) approaches to meaningfully and respectfully engaging with communities and Nations in the North; 2) knowledge translation and mutual capacity building; and 3) responsibilities and accountabilities for engaging with communities and Nations. We find resonance with the Five R's of research—relevance, reciprocity, respect, responsibility, and relationship—that help ensure Western-derived knowledge benefits the communities and Nations that ECRs work alongside.

Introduction

In recent decades, calls have been made for re-evaluating and reformulating research undertaken in northern Canada. In response to research practices that inherently privilege the voices and priorities from primarily southern institutions rather than the communities, Nations, and individuals in the North, several national and international guidelines on northern research have been produced (Alaska Federation of Natives, 2006; Canadian Institutes of Health Research et al., 2018; Interagency Arctic Research Policy Committee, 2018; International Arctic Social Sciences Association, 2020; Inuit Circumpolar Council, 2022; Inuit Tapiriit Kanatami, 2018; Protection of the Arctic Marine Environment & Arctic Council, 2021; The First Nations Information Governance Centre, 2022). Rather than promoting one unified standard or approach, however, the guidelines published by Indigenous-led organizations, scientific committees and councils, and governmental bodies all represent diverse perspectives and unique cultural contexts for northern researchers to consider.

A growing body of scholarly literature has also emerged concerning research relationships in the North. This literature reflects on issues such as the ethical responsibilities of researchers engaging with Indigenous communities and First Nations, and best practices for effectively and respectfully interacting with communities during all research stages (Eerkes-Medrano et al., 2019; McClymont Peace & Myers, 2012; Pearce et al., 2009; Pulsifer et al., 2012; Wilson, 2008; Wong et al., 2020). In addition, this literature explores the co-production and co-creation of knowledge in northern research, and the role these processes play in fostering meaningful engagement with Indigenous communities and Indigenous Knowledge Systems (Degai et al., 2022). Author guidelines focused on community collaboration and the transparent reporting of research studies, including those produced by Canadian Science Publishing (2022), further signal the increasingly relevant and shifting tide of community-engaged research. While there is no universal definition or method of carrying out "engaged" research in this context, it could be described broadly as an ongoing negotiation and exploration focused on developing meaningful practices and dialogue between communities, Nations, individuals, and researchers.

While this article does not engage deeply with the philosophical underpinnings of Indigenous Knowledge(s), this is a key area of inquiry in order for community-engaged research to take place in a good way (McGregor, 2021; L. R. Simpson, 2004). It is essential to learn deeply about these underpinnings if researchers engage with Indigenous Knowledges in any way (Kovach, 2009; Smith, 1999; Tuck & McKenzie, 2015). As more researchers engage with Indigenous

Knowledge(s), which can at once be incredibly helpful or harmful for Nations and communities (A. Simpson, 2014; L. R. Simpson, 2004), decolonial methodologies become all the more pressing (Smith, 1999).

With some notable exceptions (MacMillan et al., 2019; Sjöberg et al., 2019; Tondu et al., 2014), there is little written specifically on the experiences of early career researchers (ECRs), defined here as graduate and post-graduate students, and scholars who have received their highest degree within the past five years. Given this context and the significant role of ECRs in shaping future research paradigms across disciplines, this article contributes to current discourses regarding the challenges, opportunities, and aspirations of researchers seeking to sensitively and reflexively engage with northern communities and Nations. We offer the personal perspectives, stories, and lessons of a group of multidisciplinary, northern-focused ECRs, all past or current members of the Circumpolar Students' Association (CSA) at the University of Alberta. We hope the following discussion will provide valuable points of resonance and reflection for other ECRs and, more broadly, to senior researchers who may support us in changing research paradigms in northern Canada.

Method

We collectively came together as part of the Association of Canadian Universities for Northern Studies (ACUNS) conference in November 2021 to share our storied experiences (Wilson, 2008, p. 98) as ECRs working in and alongside northern communities and Nations. We use the term Nations in reference to First Nation, Inuit, and Métis Peoples that seek a Nation-to-Nation relationship with Canada. Communities may be part of Nations or separate and may include Indigenous and non-Indigenous individuals. ACUNS increases the awareness of emerging northern researchers, who are both residents and visiting researchers, to gather and share their experiences. Our method of sharing experiences in conversation was inspired by Littlechild et al. (2021) who note the importance of stories as Indigenous research methods. While thinking about the challenges that ECRs encounter, especially while working in the North, we developed three main questions to help guide our conversation of engaging with communities as ECRs. Guided by methods of sharing our lived experiences through conversational practice and what we learned along the way, we found a shared understanding of the Five R's of research (Kirkness & Barnhardt, 1991; Restoule, 2008): respect, relevance, reciprocity, responsibility, and relationship. As Indigenous and non-Indigenous ECRs, we value the importance of walking together in conversational spaces, building on our individual and collective knowledges. While we shared, we imagined being in a circle conversation (Hart, 2002) where we held space for each voice to carry agency.

In this conversational space we also asserted Indigenous research frameworks of storying our collective experiences by applying a decolonial lens that we hope will prompt action—from interrogative research to more respectful and relations research methods—for ECRs (Kovach, 2009, p. 79). To garner this, we encouraged mutually respectful relations through our positionality in research and "self-location" of where our familial roots stem (Kovach, 2009, p. 110) as we introduced ourselves as ECRs.

Anita Lafferty (ts'élî–iskwew) has a PhD from the University of Alberta in the Faculty of Secondary Education. She carries with her two ancestral backgrounds, Dene and Cree. She is a citizen of Líídlų Kuę́ First Nation in the Northwest Territories. Her doctoral research examines approaches of Indigenous curriculum perspectives that are grounded in *Dene k'ęę* (ways of knowing) on the land. Before undertaking her doctoral studies, Anita was a high school teacher implementing successful practices for Indigenous youth. Her research includes learning on the land, experiences of Indigenous youth, identity, healing, and matriarchal wisdom. She enjoys taking a multidisciplinary approach in research, drawing on the fields of photography, poetry, and storytelling.

Jared Gonet is a Taku River Tlingit citizen with family ties to Carcross Tagish First Nation (Yukon) and relations in Fort Liard and Fort Simpson (Northwest Territories). My paternal grandmother was from the Carcross area, my paternal grandfather originally from Poland. My maternal grandmother was from Fort Simpson, and maternal grandfather from Fort Liard. I currently reside in Whitehorse, Yukon, where I was born. I see my path as one that is part of resurgence, reclamation, and healing. I strive to learn and live with living landscapes. The mountains of the North, especially in the Southern Yukon, are home in every sense of the word.

Tina Wasilik is the proud daughter of Taiwanese immigrant parents. She is a teacher, PhD candidate, and an early career researcher at the University of Alberta. Tina's doctoral research focuses on Inuit women's educational and employment self-reliance in Nunavut. Tina was born in Taiwan, the Traditional Homeland of the Ami, Atayal, Paiwan, Bunun, Puyuma, Rukai, Tsou, Saisiyat, Yami, Thao, Kavalan, Taroko, and Sakizaya Peoples. She was raised in Vancouver, British Columbia, the Traditional Territories of the Musqueam, Squamish, and Tsleil-Waututh Peoples. Her doctoral work has been carefully and culturally designed to, foremost, honour Inuit Knowledge Systems. This holistic approach considers the multi-dimensionalities of Inuit culture and language frameworks.

Lauren Thompson is a white settler from Prince Albert, Saskatchewan, of Treaty 6 territory, and is currently a PhD candidate in Renewable Resources. I work to understand water quality impacts arising from permafrost thaw in the Dehcho (Northwest Territories) and on Dene Tha' lands (Alberta) alongside Knowledge

Holders from communities. As a southern researcher in the North, my identity informs my work. My family's settlement in Canada from Europe as prairie farmers and teachers is inextricably linked to colonial dispossession, genocide, and violence to Nehiyaw, Niitsítapi, and Métis Nations (Morton, 2019). My interest in land-based research is complicated by its origin in childhood summers spent at Prince Albert National Park, a "wilderness" constructed after the violent removal of Indigenous Peoples and built using forced labour of immigrants during the Second World War (Waiser, 1995). I am grateful to have learned alongside fellow ECRs in the development of this piece.

Selina Ertman is an MA candidate in socio-cultural anthropology at the University of Alberta. Her ethnographic research focuses on education policy and self-determination in Nunavut. She was born and raised in South Cooking Lake, Alberta, the Traditional Homeland of Nehiyawak (Cree), Siksiká (Blackfoot), and Tsuut'ina Nation (Sarcee) Peoples. Selina's interest in education stems from her family, many of whom are teachers. During her undergraduate degree, she became especially interested in education in the North. As a southern-based researcher, Selina situates herself as a learner and acknowledges that she is not an authority on Indigenous or northern topics. She recognizes her responsibility to exercise cultural humility and reflexively assess her practices, attitudes, biases, and expectations throughout her research journey.

Sasiri Bandara is a Sri Lankan-born Canadian. For most of his life, Sasiri has lived in Treaty 6, traditional and ancestral territory of the Cree, Dene, Blackfoot, Saulteaux, Nakota Sioux—and home to the Métis Settlements and Métis Nations of Alberta, Regions 2, 3, and 4. During his time as an undergraduate (BSc) and graduate (MSc) research student in the Department of Earth and Atmospheric Sciences at the University of Alberta, Sasiri conducted field-based environmental science research on the Traditional Territories of the Tr'ondëk Hwëch'in and Vuntut Gwitchin First Nations, in the Yukon. Sasiri approaches this collaborative project as a listener and learner—and provides his non-Indigenous experiences and reflections from the natural sciences with the hope that it will be helpful for current and prospective researchers.

What are Approaches to Meaningfully and Respectfully Engaging with Communities and Nations in the North?

Anita: For me, particularly as a First Nations scholar and educator with strong kinship ties to the North, confronting the tensions that reside within research is fundamental. Research has not always been a positive word or action for Indigenous Peoples—in fact, Smith (1999) refers to it as a "dirty word." As an ECR it is important for me to place myself in relation to all beings, both living and non-living, that I am working alongside.

As I am (re)learning Dene k'ee (philosophies), I am actively learning what it means to be in relation to place(s). In my research, I visit the concept of kinship and I have learned that I have kinship relations across the North in many regions. As a relative, it is my responsibility to learn about the community and the land where my ancestors walked and still do. I also carry the responsibility of sharing the stories as my ancestors once did, and with the same intentions, for future generations. I enter into research as a persistent learner, an apprentice of sorts. I know fully that I am not an expert, it is the members of the community I work alongside who are the experts. As an observer, I engage with stories from the community and promote agency and voices of the community to be central to my research. It is important to recognize that cultural competence is not only about learning the culture, but "committ[ing] to its continued growth and transformation" (Maracle, 2017, p. 78). In my view, engaging meaningfully and respectfully with communities and Nations in the North means being culturally competent within the diversity of cultures and Nations within the North. It is about continually learning with purpose, and for me that is growth. Building relationships and being accountable to those relationships is central to meaningful research (Clandinin, 2006, p. 47) in both narrative inquiry and Indigenous research (Wilson, 2008, p. 77).

[In narrative inquiry] we negotiate relationships, research purposes, transitions, as well as how we are going to be useful in those relationships. These negotiations occur moment by moment, within each encounter, sometimes in ways that we are not awake to. The negotiations also occur in intentional, wide awake ways as we work with our participants throughout the inquiry. (Clandinin, 2006, p. 47)

As a narrative inquirer and ECR, my research is centred around the stories of experience—I seek to understand the diversity and richness of storied lives. I am more aware and conscious of all beings: people, animals, land, waters, and sky. I walk with honour and integrity with the people and places I work alongside, this is also how I am accountable to research. I think this strategy is how we can approach research in the North or elsewhere in a meaningful and respectful way: by being *consciously in relation*.

Jared: I'd like to focus on Nation-engaged research, which has subtle differences from community research as many Indigenous Governments (or as I refer to here as Nations) continue to fight for greater self-determination. First and foremost, Nation-engaged research should be built (within reason) with the Nation you

wish to work with, including but not limited to the questions, potential methods, interpretation, and communication. Some Nations may have greater capacity or interest to engage yet may still find the research of great interest and importance. Reciprocity should be a necessary part of the project, where the Nation is getting something relevant and meaningful to their priorities as a Nation. As you do this, be aware of what skills you can offer the Nation, and consider this the start of an ongoing relationship that will hopefully never end. As researchers working with Indigenous Governments (I use the broad term of Indigenous to include Inuit, Métis, or First Nations) in the North, we need to realize these are Nations seeking self-determination in a highly colonized world. I recommend reading relevant literature and books from Indigenous academics prior to starting any Nation-engaged research. Finally, be aware that many Nations have had negative experiences with researchers, which you may need to navigate.

Tina: When working with communities and Nations in the North, positionality (Martin & William, 2019) is one research approach that non-Indigenous early career researchers should implement. Positionality (Martin & William, 2019) means that as the researcher, we must introduce ourselves authentically, so that our participants and the community members know who we are and our research intentions. Positioning my identity in my research includes acknowledging my given names and upbringing, and that I was pursuing a Bachelor of Education degree and cultivating the inspiration to work in Nunavut.

My real names are 葦晴 (Wei Qing) and 亭如 (Tin Zoo). Only my close family members and relatives call me Wei Qing. As a child, I had a minor health condition. In the hopes of helping me, my father consulted a Buddhist fortune teller who suggested that my name be changed to improve my health. Therefore, my father changed my name to Tin Zoo when I was seven years old. I also go by the name Tina because that is the name that my mother came up with so that I can fit into mainstream Canadian culture.

I grew up in a multi-generational home in Taiwan for the first eight years of my life. I have always been taught by my paternal grandmother to respect, listen, and use my skills that the Creator has gifted me to contribute to our family, community, and society. As the proud daughter of Taiwanese-Canadian immigrant parents, Dr. Chen Che Chao and Professor Liang Tsuey-Yuh, I learned the importance of "formal" education. However, when I first encountered the Canadian Residential School system in my Grade Nine social studies class, the history of this cultural genocide broke my heart. Learning about this dark chapter in Canadian history planted a seed that ultimately inspired me to learn alongside our Indigenous Elders, brothers, sisters, and community members.

Having graduated from the University of British Columbia's Bachelor of Education program, I relocated to Nunavut to start my teaching career. I lived and taught in Nunavut for three years, and I had the privilege to be a co-instructor in an early childhood education (ECE) diploma program. This two-year accredited program had eight Inuit women teacher-trainees who worked with preschoolaged children. The preschool is called "Pirurvik," which means a place to grow, because it impacted three generations simultaneously: Inuit Elders as they passed on their traditional ancestral stories and guidance, teacher-trainees as they learned valuable employment and life skills, and children as they received an Inuit-centred early childhood education. Inspired by this generational learning environment, I will investigate how Inuit women foster self-reliance for my PhD dissertation. I will gather stories from the ECE graduates related to their personal growth while participating in the ECE diploma program. I hope that their experiences will motivate the Nunavut Government to invest in similar future educational endeavours.

Lauren: Meaningful and respectful engagement depends on the research context and how you intend to interpret and apply "engaging" or "engagement," which fits along a spectrum that I am still learning to navigate as an ECR. However, nearly universally, it is vital to do the groundwork before beginning. Some suggestions include making sure you and all team members from southern institutions have a baseline understanding of where you're going. Look into the histories of the communities, Nations, and lands you visit. Discuss the current and historical legacy of colonialism. It is also important to explore what work has already been done by other researchers or community-led projects. You may need to look outside of academic publications for this.

Bringing yourself to the research as part of navigating this process was highlighted by Inuk scientist Dr. Aviaja Lyberth Hauptmann, who presented at a Circumpolar Students Association conference in 2021 (Hauptmann, 2021). Doing so leads to openness and strength in relationship building. Putting yourself out there and meeting folks in the community can subvert the "parachute science" norms of many natural science disciplines. You need to build this time into your project schedule, although this could be a challenge as an ECR if you are not a primary organizer. Also, note that folks are busy and a lot is going on, particularly in the summer if that is your field season, so it is essential to respect boundaries. Flexibility is necessary too! You could get a request for something that wasn't part of your initial plans that is potentially unrelated to your research—from my view, if you can help out in any way, this should be prioritized.

From my perspective, I can't evaluate whether my approaches to engagement have been meaningful or respectful, but I can say that communicating in face-

to-face meetings has been most successful for me compared to email or phone. However, I recognize that COVID-19 has made this a challenge. Introductions from someone you know with a longer-term relationship in the community or Nation can be a great starting point for an initial conversation.

Selina: I would first like to acknowledge that I am not from the North, nor am I Indigenous. I am not an authority on this topic and want to situate myself as a learner. My opinions are based on my personal experiences, and my hope is that these experiences will provide points of resonance and reflection for other northern-focused ECRs.

From my perspective, it is important to recognize that community engagement lies on a spectrum and that there is no single or "right" way to engage with all communities (Attygalle, 2020). A certain approach to community engagement may work well for one researcher/community but not another, and there are also disciplinary differences and standards impacting this process. It is crucial to map out a research plan that you anticipate will be realistic and, early on, consider which methods align with the community or Nation you are working with. It is also essential to remember that community members have their own lives and priorities to attend to, and this has to be respected.

I would further encourage researchers to recognize that community engagement requires ongoing flexibility, which can at times be difficult to balance with the funding and time constraints associated with academia, especially at the graduate level. For example, when I first began my Master's degree, I planned to carry out interviews at a particular school in a community in Nunavut. However, I had to adjust my research plan and location when the school let me know they no longer had the capacity to participate in the project due to factors such as limited staff and the ongoing COVID-19 pandemic. This was a stressful experience, but as a result I was able to develop a better understanding of how meaningful community engagement is sometimes about being able to expect and accept that the answer may be no, or not right now.

Community engagement, though incredibly rewarding, is rarely a linear or predictable process, and finding peace with that reality has been vital for me. Additionally, I have found value in a willingness to relinquish the need for control and to exercise cultural humility through my research (Chávez, 2012). In my view, cultural humility means recognizing and being sensitive to the fact that I am not an expert on the needs of the northern communities I am working with and am first and foremost a learner.

Sasiri: Meaningful and respectful engagement varies depending on many factors, including, but not limited to, who/what is involved, where/when the work is being

done, why the work is being done, what methodologies are employed, and how the work or its outcomes affect communities and Nations. Although specifics may vary, the constant that remains true across all disciplines is that open communication and engagement should be made a priority from the onset of a project instead of being introduced as an afterthought. Learning about relationships between communities and landscapes is a critical obligation of researchers in the natural sciences, especially as many of these communities often have a strong connection to animals and the land (Wong et al., 2020).

I think the best approaches to engagement involve respect, humility, transparency, acknowledgement, and acceptance of the ideas of local communities and Indigenous Peoples—ideas that may not necessarily align with your research motivations. It is important for researchers to check their assumptions at the outset and initiate engagement with an open mind. Co-creation and knowledge-sharing should be welcomed, and the value of collaboration should not be overlooked (Sadowsky et al., 2022; Sjöberg et al., 2019; Tondu et al., 2014). ECRs can look to guidance from supervisors or other peers when unsure about a best path forward; more importantly, ECRs should ask for expectations directly from the communities being engaged whenever it is feasible to do so.

What Knowledge Translation and Capacity-Building Skills Should Early-Career Researchers Develop for Working in the North?

Anita: Metóts'edege. The translation for this Dene zhatie phrase means "you flesh it" or "take the flesh off." This term is in reference to harvesting animals or fish, it is the fleshing of the skin. This method of fleshing the skin is often used for tanning hides. When fleshing a hide or skin, there is a process, where patience and listening skills play a vital role in all aspects of the process. With every language there are variations in translation or meaning. As I am (re)learning the language of my ancestors, I am learning the significance that translation has in language acquisition. The same can be said for knowledge translation. It is important in knowledge translation that I listen with full embodiment. This means to listen with a full awareness of mind, action, and understanding in new ways. I understand that we all come with different experiences and with that we also come with different stories. An Elder taught me that the same is with language, each word translated has a story. By taking the time to listen, I am being relational to each story, each word that emerges. In my understanding of knowledge translation, relationships sit at the core. Engaging, sharing, and participating are action-based approaches that are central to relationship building.

As I work alongside communities, listening is the most critical aspect in being relational to all. Sometimes *listening* is a hard concept to convey, as we may think

that it takes time away from what we deem as important in research; but when we learn to listen carefully, we often learn more. Take the time to listen.

As an ECR, I must not assume that participants or community members I am working alongside have the same definition of knowledge translation. Different experiences also create different understandings. As an ECR, I have to take the time to understand the people and places I am working alongside. It is like metóts'edege, taking the flesh off. It requires patience, understanding, and flexibility. In order for me to listen with good intentions, I must learn to understand the language of the community, come with an open mind and open heart. I am committed to honouring and respecting community voices, which is at the heart of my work. This is key to creating sustainability and capacity building. As ECRs, it is important to remember that we are only visitors, learning alongside the people and places we engage with.

Jared: Communication skills are important—being able to write in clear, understandable, and non-technical ways are a must, as well as being comfortable with a chat over tea, or over the phone, or in a meeting room. I'd also emphasize practising your research with a sense of humility, working towards understanding of a Nation's history, and deep empathy. You are engaging with people who are deeply knowledgeable about the North, about its environments, its political contexts, and social histories—respect that, and the lived experience so many have, which is so often undervalued.

Uplift Indigenous voices and knowledge whenever you can—as noted, they have too often been undervalued. In your work, funding applications, and planning, advocate for benefits to Nations and their communities on their terms and what works for them. Wong et al. (2020) have an excellent set of ten calls for actions for natural scientists in Canada, which I highly recommend reading. I cannot emphasize enough to educate yourself on the socio-political context of the area you are working in. Work in decolonized (or anti-colonial as per Max Liboiron's excellent writings, e.g., Liboiron, 2021a), reflexive, reconciliation frameworks, which question how you present yourself and your work in every way. Above all, do not become an agent of colonization which serves systems of knowing and doing that extract Indigenous Knowledges out of their context.

Tina: One way that ECRs can contribute to capacity building is by bringing themselves into their research. My research methodology is Indigenous storywork, which involves holistic meaning-making by listening to Indigenous people's stories with the heart, mind, body, and spirit (Archibald et al., 2019). As a non-Indigenous researcher, I acknowledge that the method of conducting storywork research does not belong to me. Therefore, I scheduled an in-person meeting with

Dr. Archibald in December 2019 to pay my respects and ask permission to use her methodology.

When I asked about a non-Indigenous researcher using Indigenous storywork methodology, Dr. Archibald replied:

As a non-Indigenous researcher, you need to show commitment to the Early Childhood Education, Kindergarten to Grade 12, and post-secondary education systems. Furthermore, you need to do some soul searching to make a long-term commitment as an Indigenous-ally researcher. You need to follow the research protocols of Nunavut and allow relationships to be built. Also, remember the ethical responsibilities as a non-Indigenous researcher working with Indigenous communities. Lastly, you need to be story-ready. (Archibald, 2019)

The need to do deep soul searching stood out to me; therefore, I asked my family about our heritage and history only to discover our generational trauma.

My family's history dates back to the year 1760. We belong to a Chinese ethnic group called Hakka or 客家 (Ke Jia) in Mandarin Chinese. The literal translation is "guest people" in the Mandarin language. My ancestors were originally from Northern China; however, due to warfare, political instabilities, and domination by other inner-Asian groups, they were forced to leave their beloved homelands and resettle in Southern China. This resettlement did not last long. The Taiping Rebellion (1850 to 1864) caused living conditions in Southern China to rapidly deteriorate. Once again, my ancestors faced conflicts, warfare, and destruction of personal property. They had no choice but to flee their homes and relocate to the beautiful island of Taiwan in 1859.

Their peaceful resettlement in Taiwan also did not last long. China was defeated by Japan in the Sino-Japanese War in 1895, and Taiwan was ceded to Japan as a wartime settlement and was renamed Formosa. The Japanese Government ruled Taiwan until the end of World War Two in 1945. Japan's occupation of Taiwan was particularly harsh and repressive; it exploited Taiwan's natural resources, suppressed political opposition, and forced the Taiwanese population to speak Japanese instead of their own languages. Personal freedom was widely restricted. My great-grandparents and grandparents survived the Japanese occupation of Taiwan but at a great cost.

Our family narratives continue to be dominated by the loss of our homeland, identity, and spirituality. To combat this trauma, I took a spiritual healing course in June 2021 where I represented my ancestors and family and forgave the Chinese emperors, other inner-Asian groups, and the Japanese Government

for manipulating, abusing, and rejecting who we are. This spiritual reconciliation process provides the spiritual foundation for me to be "story-ready" (Archibald et al., 2019), to be non-judgmental and open when listening to Inuit survivor stories during my research journey in Nunavut.

Lauren: To guide my thinking on knowledge translation, I cite Dr. Kim TallBear (2014) who discusses unsettling the traditional framework of the academic who is imparting knowledge upon a community. Instead, there should be opportunities for back-and-forth and learning from each other; it is always incredible to learn from Knowledge Holders in communities and Nations. My first clumsy attempt at community engagement that I organized a few years ago was a very static presentation that students gave to several community members, with little opportunity to learn from the folks there. I would say it was not very successful. It is better to develop skills in more interactive and dynamic ways to communicate. For example, you can learn so much from informal one-on-one conversations. Some other ways to mobilize knowledge could be on a community Facebook page, through radio, camps, or at schools.

One point that I really try to keep in mind regarding the toxin that I study, mercury, is the responsibility to be aware that I could cause harm if I do not appropriately contextualize my research findings. For example, if I simply reported "high levels of mercury in the water" without accurate framing (e.g., high for this region? Higher than health guidelines?), this could potentially degrade relationships with food and result in less fish consumption (Hoover, 2013; Wheatley & Wheatley, 2000). Of course, fish is a culturally and nutritionally important food in many places. So, it is important to continually assess and reassess how effective and accurate your presentation methods are.

Selina: It is important to recognize that knowledge translation carries diverse meanings and connotations across northern Indigenous communities and within academic and non-academic contexts. Knowledge translation has been broadly described by some organizations as the ethical dissemination, implementation, and mobilization of research findings (Canadian Institutes of Health Research, 2022). However, such definitions do not fully capture the cultural complexity or multi-dimensionality of knowledge translation in practice. My perspectives regarding this subject are shaped by my personal experiences within the field of anthropology as a non-Indigenous researcher.

This said, I believe that a focus on ethics and relationships are crucial to any discussion surrounding knowledge translation. Within my discipline, a lot of anthropologists have historically adopted a problematic practice of entering communities to collect research, and then disseminating and publishing data (based

on Western-style scientific methodologies and models) without considering the impacts this might have on communities, or how the research findings could be adapted to the local community context in valuable ways. For me, it is important that I am aware of this history and am actively doing all I can to not perpetuate these unethical research patterns.

My suggestion for researchers is to consult with community members on how they envision knowledge translation, and how research findings can be mobilized in culturally and linguistically relevant ways. When I first began my Master's degree, I wrongly assumed that knowledge translation simply meant offering a written report outlining one's research findings to community members. I have since learned that it is crucial to challenge these assumptions and embrace unanticipated avenues of research dissemination, implementation, and mobilization. This ultimately requires an open mind and a prioritization of patience and relationship building through ongoing community consultation.

Regarding mutual capacity-building skills and the ability of researchers to support the involvement of community members in research projects in meaningful and sustainable ways, I believe that one valuable strategy is involving youth (see Sadowsky et al., 2022 for an excellent case study). However, I readily acknowledge that ECRs may not always have adequate funding to support capacity building in communities to the extent they would like. This is certainly something I have personally struggled with throughout my own research. I do not think we need to have all the answers or a perfect plan, but it is important to begin reflecting on topics like capacity building and knowledge translation early on in one's research process.

Sasiri: In the natural sciences, hypothesis-driven research typically begins with a review of relevant literature published primarily in Western-science journals, but socio-political history is equally important when working on the Traditional Territories of Indigenous Peoples. Researchers should be deliberate in gathering background information on the histories of communities and Nations in a study region before initiating a project (Canadian Science Publishing, 2022). Many Nations have websites, which may provide a good starting point, especially for ECRs looking to gather historical information and links to further resources. More broadly, graduate students and ECRs should make use of free resources within or outside of their home institution. For example, the Indigenous Canada Massive Open Online Course delivered by the Faculty of Native Studies at the University of Alberta explores Indigenous histories and contemporary issues in Canada. There are many other resources that can collectively help ECRs get to know their audience and not engage with inaccurate assumptions (MacMillan et al., 2019).

Researchers should also recognize that the perception of their presence and intentions may be placed in context of prior relationships and doings. When engaging, researchers should be mindful of how they present themselves and avoid implying that they are all-knowing experts. Understand and honour the importance of place and traditions when engaging with Indigenous Peoples. Communicate clearly without using technical jargon and remember that two-way communication involves listening carefully and a genuine willingness to learn. Researchers should acknowledge that emails, phone calls, virtual meetings, and boardrooms are not always the preferred forms of communication for community members being engaged—the priority should be placed on appropriate approaches, structures, and settings over convenient ones (Eerkes-Medrano et al., 2019). Above all, I think researchers should take pride in developing knowledge translation and capacity-building skills because these are critical elements of working in the North.

What Kinds of Responsibilities and Accountabilities Should Early Career Researchers Consider when Engaging with Northern Indigenous Communities and First Nations?

Anita: As researchers, we each carry a responsibility to the people and places we work alongside. The late Dene scholar Phoebe Nahanni stated the following in *Dene Nation: The colony within* (Watkins & University League for Social Reform, 1977):

From generation to generation our ancestors have passed on information by word of mouth, through legends, and by relating personal experiences. The intricate values of our way of life are most appreciated by those who speak our languages. To the non-Dene such ways of recounting events may be subject to bias, error, misunderstanding, and misinterpretation. We Dene understand these shortcomings to be part of human nature. (p. 21)

Even today, this is still relevant and is a reminder that as I engage in research I carry a responsibility and am held accountable to *all my relations*. As a northern descendant, I am still considered a visitor in the North as I currently reside in Treaty 7 Territory. Taking responsibility for how I engage with communities is important to me. It is important that I consider: Why am I doing this work and what am I leaving behind? What am I contributing to the people and places I work alongside?

With this, I carry a responsibility in my actions for all beings, and accountability to my kinships as I conduct or participate in research. I also ask,

How am I being ethical in my relationships? Am I being relational? How am I entering into relation and continuing the relationships after the research is complete?

The work that I engage with alongside northerners is work that sits in my blood memory, it is kinship work. This keeps me accountable, knowing that I carry stories forward that are from my ancestors. In doing so, I am also protecting the ancient knowledges so they will continue to be recognizable to future generations of Dene. As I consider working with others in relation, I am also considering them as co-creators of the work ensuring that Indigenous Peoples specifically are the stewards of their own information. We walk together in balance; this is being ethically relational.

Jared: There needs to be more awareness of the deep need for systemic change, of what it means to live within a system that privileges ways of knowing, being, and doing of those who are already in it, and how to bring in other ways of knowing, being, and doing into those systems. Advocate for different forms of knowledge as being highly applicable, for example lived experience, stories, and spirituality. Recently, I heard of a First Nation person who had been on the land during trapping season for decades, who knew a place intimately as few could. When he was asked to speak to what he knew about the land, he questioned his knowledge. Speak out against systems that privilege Western sciences as the ultimate form of knowledge.

Self-determination for Indigenous Nations is critical. Have an awareness and at least a basic working understanding of modern treaties and Indigenous Nation histories, and be curious to know more if you plan to work with Nations and their structures.

Capacity building within Indigenous Nations is crucial yet we need to redefine somewhat what this means, and this is related to a need for systemic change. Capacity for Indigenous Nations should help reinforce Indigenous ways of knowing, being, and doing in a modern world, it does not always mean having another degree or greater education.

Positionality is crucial, as I have touched on in other sections. Know your own position in the world and the histories that have created your outlook, and question them. I highly recommend Willie Ermine's article "The Ethical Space of Engagement" (Ermine, 2007) as a starting point to consider the deconstruction of two world views meeting, to help place yourself.

Finally, be kind to yourself and those you work with—these are complex, wicked, ongoing problems that we all face, whether Indigenous or non-Indigenous. As researchers, is it not our task to make mistakes, learn, and do better? Most of us are just aiming at that, to do better, whatever our positionalities.

Tina: I view my research as a reconciliation process. As an Indigenous-ally researcher, my responsibilities and accountabilities come from balancing Western academic institutional expectations with using Indigenous theory and methodology in a culturally sensitive way. I see myself primarily as a learner honouring deeper foundations of Inuit culture and distinctive knowledge by listening to Inuit voices and respecting Inuit Elder guidance.

Through my research journey I want to foster mutual understanding, respect, and collaboration. Absolon et al. (2019) argue that to create change in the research process we need to think about the seven generations past and the seven generations into the future. Embracing this within my personal life, I started to educate my family members, friends, and colleagues—whom I see as my villagers (drawing on the concept that it takes a village to raise a child)—about the importance of situating oneself within research. To achieve safe spaces within research, Indigenous-ally researchers are responsible for creating respectful spaces for talking, listening, sharing, and healing (Graveline, 1998) for their research participants.

As an Indigenous-ally researcher, I am aware of the responsibilities and ethical implications of doing Indigenous research. To carry out relational accountability (Wilson, 2008) in a respectful way, I acknowledge that my proposed participants are a part of a larger whole and their stories will be treated with respect. Carrying out Indigenous research is an ongoing relationship and commitment (Lavallée, 2009) that extends well beyond the final report, dissertation, peer-reviewed article submission, or conference presentation. As a researcher, I want to promote a continuous collaboration in areas such as research projects, professional development for teachers, or training programs for post-secondary students. As a teacher, I want to continue my learning by co-teaching with Elders to sustain healthy learning environments for Inuit children and adult learners. Substitute teaching will help me establish a presence within communities because this will provide opportunities to interact with school administrators, teachers, students, and their families. I see relationship building as the main responsibility to engage in community life.

Lauren: I will cite Dr. TallBear again (TallBear, 2014)—something that has deeply stayed with me was her framework on the ethics of accountability in research, considering whose lives, lands, and bodies are inquired into and what they get out of it. Another point that Dr. Hauptmann talked about at the Circumpolar Students' Association conference was related to how many material benefits there are for ECR scientists working in the North—such as acquiring an advanced degree, or scholarships and funding, or advancing your career through publications—and how it is important to be open about this (Hauptmann, 2021).

I certainly don't have all the answers to balance those concepts. But I think ECRs, especially natural scientists including myself, need to continue examining this balance (or imbalance). The act of research is not neutral, it is impossible to be completely objective, and the data collected in the pursuit of research are connected to lands and lives. Dr. Max Liboiron's work interrogating colonialism within dominant science practices are essential reads (e.g., Liboiron, 2021a, 2021b). I have tried my best to take care in both my relationship building and my treatment of and presentation of collected data, knowing that I won't get it right every time but can learn from each experience and improve the next time. Perhaps some aspects of reciprocity can be a practice of accountability, such as providing compensation, ensuring all collaborators are credited co-authors, and having a collective agreement with collaborators on data that honours the First Nations Principles of OCAP®—ownership, control, access, and possession— ensuring data sovereignty (The First Nations Information Governance Centre, 2022).

Selina: In my view, it is vital for ECRs to consider their positionalities when engaging with northern communities and First Nations (see Holmes, 2020, for a valuable discussion on researcher positionality). As a non-Indigenous, southern-based researcher, for example, I have a responsibility to educate myself on the historical and ongoing process of colonialism and unequal researcher/community power-relations in the North. Beyond educating oneself, I also believe that it is the responsibility of researchers to reflect deeply on how they are benefiting from research projects and how community members may or may not be benefiting from them, as well. This reflection paired with community consultation may require us to alter our research questions and topics over time, as has been the case for me. Being receptive to critique and open to changing our research activities and practices can be intimidating, but I believe it also makes us better researchers.

ECRs may not always have the time, capacity, or funding to carry out research with the level of community engagement they initially hoped for. Personally, I have experienced difficulties developing reciprocal, meaningful relationships with community members, especially at the beginning of my research process and when the only available form of communication was email or phone. Being in the midst of a global pandemic does not ease this process, as I am sure many other ECRs can understand. Community engagement, therefore, requires patience, flexibility, and sensitivity, and it does not always unfold the way we expect it to. Given this reality, we have a responsibility to do the best we can with what means we have. To me, this involves being honest and upfront with the communities we are working with throughout the research process and treating community engagement as a lifelong learning process that is not about striving towards perfection but is rather about continual reflexive reassessment of one's practices, attitudes, biases,

and expectations. I further assert that ECRs, in particular, have a responsibility to question and challenge the traditional research standards and practices characterizing the institutions, faculties, and disciplines we are a part of.

To consider this question further, I recommend reviewing resources developed by organizations such as the Inuit Tapiriit Kanatami (ITK), which offer guidance on negotiating relationships with northern communities as researchers and explore why researcher/community relations in the North need to change (Nickels et al., 2006). There may also be classes or workshops on community engagement at your post-secondary institution that you can attend (I attended such a class during the first year of my Master's degree and found it invaluable). Starting a conversation on this topic with your supervisor or faculty and students in different disciplines who may have experiences and/or advice to share is also beneficial. What is important is that we as ECRs, and researchers in general, begin to engage more frequently in these kinds of conversations.

Sasiri: ECRs are commonly faced with conflicting priorities and interests, whether it be from within an institution or more broadly from elsewhere in the academic or professional community. It is important to dissuade these interests from overshadowing ethical and moral obligations related to engagement with northern Indigenous communities on whose Traditional Territories we conduct research (Wong et al., 2020).

I think ECRs should always keep lines of communication open among all stakeholders throughout a project. Share progress—but do not assume that regular updates and constant communication is appropriate as communities may not always have the capacity to reciprocate. For this reason, it is a good idea to establish an understanding of how much communication is acceptable in the early stages and follow that strategy through to the completion of a project. While it helps to have a plan and some structure in place, it is important to be flexible and encourage feedback that will help improve relationships. Researchers should not let the pressure to publish prevent them from fulfilling their ethical obligations of acknowledgement, collaboration, and co-creation. Unfortunately, the problem of overlooked research ethics and discrimination is widespread in many disciplines (Woolston, 2021), and must be urgently addressed from a standpoint of equity, diversity, inclusion, and decolonization.

Importantly, ECRs should not be afraid to lead by example and hold their peers accountable. There is plenty of room for improvement—and ECRs can help by being deliberate about fulfilling responsibilities through respectful engagement practices.

Conclusion

Reflecting on the collective conversation presented in this article, we find commonalities in our guiding principles and questions as ECRs; we share a visual representation of this in Figure 1.

As we consider these important questions and continue to negotiate research practices as ECRs working in northern communities and Nations, we carefully reflect on our relationships with ourselves and others. Our experiences working alongside northern communities and Nations centre collectively around our shared understanding of ethical stewardship as meaningful and respectful research relationships. Together, we value community-centred approaches where "good research" involves transparent working relationships, flexibility, democratic methods that respect the nature of holistic approaches and community involvement, and giving back to the communities as we learn and grow from each other. Implementing these values can, at times, be at odds with dominant research paradigms and expectations (e.g., hurried timelines and the pressure to publish). Having "buy-in" and support for community- and/or Nation-centred approaches from advisors and funders will be essential for these practices to become standardized in northern research.

It is also valuable to reflect on our experiences as ECRs during COVID-19. The pandemic, which continues to impact and disrupt the lives of many northern community members and Nations, demonstrates the importance of being willing to continually re-evaluate and revise our research practices. For many of us, some aspects of research in and alongside communities and Nations in the North have been disrupted or halted altogether. As ECRs, we each found ways to adapt as we transitioned through pandemic restrictions at different stages in our research processes. We honour, value, and respect closed borders during COVID-19, knowing that it helps protect northern communities and Nations. We recognize the importance of aligning our research methods with local health and safety guidelines, and of following best practices that foster fair research partnerships at all times (World Health Organization, 2020). It is crucial to be aware of, and sensitive to, the ongoing and multi-faceted experiences of communities and Nations as we navigate the shifting landscape of northern research.

While discussing our research with each other, we are comforted to know that we are not alone in this process. Together, we value relationships as an essential part of our work, knowing we are growing a stronger community of ECRs who share the same perspectives on ethical relationality (Kovach, 2017; Liboiron, 2021a; TallBear, 2014; Wilson, 2008). Ermine (2007) describes ethical space as "formed when two societies, with disparate worldviews, are poised to engage each other" (p. 1). As ECRs, we place value and hold ourselves accountable to the

relationships we develop over time within northern communities and Nations—relationships that we hope to carry forward in our careers and hold with respect. In ethical relationality, we are deeply aware that our actions as ECRs impact the people and places we work with. Wilson (2008) shares that to demonstrate ethical relationships, we need to engage respectfully, reciprocally, and responsibly (p. 99).

As we engage with northern communities and Nations we make certain to educate ourselves about the socio-political context and the work already done so that we do not overlap or disrupt people and places. Understanding where we are in our life journey, we are able to confront our own story as it relates to research (Absolon & Willett, 2005). As a result, we are held accountable not only to ourselves but also to the people and places we affect. Involving the community in our stories is equally important, as it allows us to learn more about different world views. Community involvement allows for ethical space to be delineated with respect, and for reflexive questions to emerge. Consider asking yourself whether you are bringing your whole self to the research. It is integral to consider your position within the research process at each stage (Hauptmann, 2021; Liboiron, 2021a).



Figure I. Our collective visual representation of the Five R's of Indigenous research and guiding questions as Early Career Researchers: respect, relevance, reciprocity, and responsibility, with relationships intersecting all aspects (Freire, 1986; Kirkness & Barnhardt, 1991; Restoule, 2008; Truth and Reconciliation Commission of Canada, 2015). Photo credits: S. Bandara.

The journey between the community, Nation, and researcher must be guided by co-learning, co-creation, and may include anti-colonial considerations (Liboiron, 2021a; Wong et al., 2020). Research may, and often should, push against institutional and societal norms (Liboiron, 2021b; Potts & Brown, 2005)—norms that have created distrust towards many aspects of research, especially for Indigenous communities and Nations. Societal and institutional norms may also limit conversations and invalidate different forms of knowledge (Liboiron, 2021a). By following the lead of the Truth and Reconciliation Commission of Canada (2015), we aim at strengthening community voice by establishing diversity and honouring the Calls to Action. Establishing trust while interrogating societal and institutional (and your own) norms is essential, especially among Indigenous communities and Nations.

As ECRs, it is important that we continually engage in self-reflection throughout our research processes. The establishment of respectful relationships with northern communities and Nations relies on our willingness to openly and honestly acknowledge our biases and moral values within research (Soedirgo & Glas, 2020). Our positionality and the positionalities of our participants (people, communities, animals, land, sky) are honoured this way.

As our discussion comes to a close, we find the words of Gwichyà Gwich'in scholar Dr. Crystal Fraser, shared at a 2016 Canadian Historical Association conference panel, especially pertinent. At this panel, Indigenous historian Winona Wheeler argued that "We need to be doing research that matters" by asking the questions: is this relevant to the community or Nation, and is this helpful? As a northern descendant, Fraser (2019) contributed to this conversation by explaining that "the best research projects are those that come from the heart, are deeply personal, and are committed to upholding the sovereignty of Indigenous Peoples" (p. 23–24). The words of the late Chief John Snow of the Stoney Nakoda Sioux First Nation further speak to the heart of reconciliation and calls to action that we each honour in our lives and work. He shares "Our ancient prophecy tells us that a day is coming when the Indigenous people of this land will teach other peoples, other Nations about the importance of life in harmony with the cosmos" (Snow, 2005, p. 243).

Learning and growing as a community brings us together on common ground where respecting equality grounds us in our humanity. As ECRs, we want to ensure that the research we are conducting alongside communities is sustainable for future generations and that we are learning and growing together. Collectively, we understand the importance of reciprocity and honouring the world views, perspectives, languages, and values of the people and places we work alongside in northern communities and Nations.

Acknowledgements

We want to thank and acknowledge the 2021 Association of Canadian Universities for Northern Studies (ACUNS) Student Conference as a forum to organize and discuss ideas, the Circumpolar Students' Association (CSA) for bringing us together, and the University of Alberta North for the ongoing support of CSA activities and the space to gather. We gratefully recognize the communities and Nations that we have learned alongside as graduate students.

References

- Absolon, K., Absolon, J., & Brasher, L. (2019). Indigenous/Anishinaabek wholistic healing. In P. A. Dunn (Ed.), *Holistic healing: Theories, practices, and social change* (pp. 35–62). Canadian Scholars.
- Absolon, K., & Willett, C. (2005). Putting ourselves forward: Location in Aboriginal research. In L. A. Brown & S. Strega, *Research as resistance: Critical, Indigenous and anti-oppressive approaches* (pp. 97–126). Canadian Scholars' Press.
- Alaska Federation of Natives. (2006). *Alaska Federation of Natives Guidelines for Research*. Alaska Native Knowledge Network, University of Alaska Fairbanks.
- Archibald, J. Sto:lo First Nation. S'olh Temexw. Lives in Vancouver. Oral teaching. Personal communication. December 19, 2019.
- Archibald, J., Lee-Morgan, J., & De Santolo, J. (Eds.). (2019). Decolonizing research: Indigenous storywork as methodology. ZED.
- Attygalle, L. (2020). *Understanding community-led approaches to community change* (p. 13). Tamarack Institute.
- Canadian Institutes of Health Research. (2022). *Knowledge translation*. https://cihr-irsc.gc.ca/e/29418.html
- Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada, & Secretariat on Responsible Conduct of Research. (2018). *Tri-Council policy statement: Ethical conduct for research involving humans*. http://publications.gc.ca/collections/collection-2019/irsc-cihr/RR4-2-2019-eng.pdf
- Canadian Science Publishing. (2022). *Community engaged research*. https://cdnsciencepub.com/authors-and-reviewers/community-engaged-research
- Chávez, V. (2012, August 2). Cultural humility: People, principles and practices Part 1 of 4 [Video]. YouTube. Retrieved October 5, 2022, from https://www.youtube.com/watch?v=_Mbu8bvKb_U&list=PL879555ABCCED8B50
- Clandinin, D. J. (2006). Narrative inquiry: A methodology for studying lived experience. *Research Studies in Music Education*, 27(1), 44–54. https://doi.org/10.1177/132110 3X060270010301

- Degai, T., Petrov, A. N., Badhe, R., Egede Dahl, P. P., Döring, N., Dudeck, S., Herrmann, T. M., Golovnev, A., Mack, L., Omma, E. M., Retter, G.-B., Saxinger, G., Scheepstra, A. J. M., Shadrin, C. V., Shorty, N., & Strawhacker, C. (2022). Shaping Arctic's tomorrow through Indigenous Knowledge engagement and knowledge co-production. *Sustainability*, 14(3), 1331. https://doi.org/10.3390/su14031331
- Eerkes-Medrano, L., Huntington, H. P., Castro, A. O., & Atkinson, D. E. (2019). Engaging northern Indigenous communities in biophysical research: Pitfalls and successful approaches. *Arctic*, 72(2), 166–180. https://doi.org/10.14430/arctic68194
- Ermine, W. (2007). The ethical space of engagement. *Indigenous Law Journal*, 6, 193–203. https://jps.library.utoronto.ca/index.php/ilj/article/view/27669
- Fraser, C. G. (2019). T'aih k'ìighe' tth'aih zhit dìidich'ùh (By strength, we are still here): Indigenous northerners confronting hierarchies of power at day and residential schools in Nanhkak Thak (the Inuvik Region, Northwest Territories), 1959 to 1982 [Ph.D. dissertation]. University of Alberta. https://doi.org/10.7939/R3-7R8S-MT09
- Freire, P. (1986). Pedagogy of the oppressed. Continuum.
- Graveline, F. J. (1998). Circle works: Transforming Eurocentric consciousness. Fernwood.
- Hart, M. (2002). Seeking mino-pimatisiwin: An Aboriginal approach to helping. Fernwood.
- Hauptmann, A. (2021, February 12). Navigating research in the Arctic. Northern Research Day, Edmonton, Alberta. [Video]. YouTube. Retrieved October 5, 2022, from https://www.youtube.com/watch?v=dJUtADWbvWk
- Holmes, A. G. D. (2020). Researcher positionality—A consideration of its influence and place in qualitative research—A new researcher guide. *Shanlax International Journal of Education*, 8(4), 1–10. https://doi.org/10.34293/education.v8i4.3232
- Hoover, E. (2013). Cultural and health implications of fish advisories in a Native American community. *Ecological Processes*, 2(1), 4. https://doi.org/10.1186/2192-1709-2-4
- Interagency Arctic Research Policy Committee. (2018). *Principles for conducting research in the Arctic.* IARPC, National Science Foundation.
- International Arctic Social Sciences Association. (2020). IASSA principles and guidelines for conducting ethical research in the Arctic. https://iassa.org/about-iassa/research-principles
- Inuit Circumpolar Council. (2022). Circumpolar Inuit protocols for equitable and ethical engagement. Inuit Circumpolar Council. https://secureservercdn.net/45.40.145.201/hh3.0e7.myftpupload.com/wp-content/uploads/EEE-Protocols-LR-WEB.pdf
- Inuit Tapiriit Kanatami. (2018). *National Inuit strategy on research*. https://www.itk.ca/wp-content/uploads/2020/10/ITK-National-Inuit-Strategy-on-Research.pdf
- Kirkness, V. J., & Barnhardt, R. (1991). First Nations and higher education: The four R's—Respect, relevance, reciprocity, responsibility. *Journal of American Indian Education*, 30(3), 1–15. http://www.jstor.org/stable/24397980
- Kovach, M. (2009). *Indigenous methodologies: Characteristics, conversations, and contexts* (2nd ed.). University of Toronto Press.
- Kovach, M. (2017). Doing Indigenous methodologies. In N. K. Denzin, & Y. S. Lincoln, The SAGE Handbook of Qualitative Research (pp. 383–406). SAGE Publishing.

- Lavallée, L. F. (2009). Practical application of an Indigenous research framework and two qualitative Indigenous research methods: Sharing circles and Anishnaabe symbol-based reflection. *International Journal of Qualitative Methods*, 8(1), 21–40. https://doi.org/10.1177/160940690900800103
- Liboiron, M. (2021a). *Pollution is colonialism*. Duke University Press. https://doi.org/10.1515/9781478021445
- Liboiron, M. (2021b). Decolonizing geoscience requires more than equity and inclusion. *Nature Geoscience*, 14(12), 876–877. https://doi.org/10.1038/s41561-021-00861-7
- Littlechild, D. B., Finegan, C., & McGregor, D. (2021). "Reconciliation" in undergraduate education in Canada: The application of Indigenous knowledge in conservation. *FACETS*, 6(1), 665–685. https://doi.org/10.1139/facets-2020-0076
- MacMillan, G. A., Falardeau, M., Girard, C., Dufour-Beauséjour, S., Lacombe-Bergeron, J., Menzies, A. K., & Henri, D. A. (2019). Highlighting the potential of peer-led workshops in training early-career researchers for conducting research with Indigenous communities. *FACETS*, 4(1), 275–292. https://doi.org/10.1139/facets-2018-0046
- Maracle, L. (2017). My conversations with Canadians. Book Thug.
- Martin, G., & William, J. (2019). Le7 Q'7es te Stsptekwll re Secwépemc: Our memories long ago. In J. Archibald, J. B. J. Lee-Morgan, & J. De Santolo, *Decolonizing research: Indigenous storywork as methodology* (pp. 56–71). Bloomsbury Publishing.
- McClymont Peace, D., & Myers, E. (2012). Community-based participatory process—Climate change and health adaptation program for northern First Nations and Inuit in Canada. *International Journal of Circumpolar Health*, 71(1), 18412. https://doi.org/10.3402/ijch.v71i0.18412
- McGregor, D. (2021). Indigenous knowledge systems in environmental governance in Canada. KULA: Knowledge Creation, Dissemination, and Preservation Studies, 5(1). https://doi.org/10.18357/kula.148
- Morton, E. (2019). White settler death drives: Settler statecraft, white possession, and multiple colonialisms under Treaty 6. *Cultural Studies*, 33(3), 437–459. https://doi.org/10.1080/09502386.2019.1586968
- Nickels, S. Shirley, J., & Laidler, G. (Eds.). (2006). Negotiating research relationships with Inuit communities: A guide for researchers. Inuit Tapiriit Kanatami and Nunavut Research Institute.
- Pearce, T. D., Ford, J. D., Laidler, G. J., Smit, B., Duerden, F., Allarut, M., Andrachuk, M., Baryluk, S., Dialla, A., Elee, P., Goose, A., Ikummaq, T., Joamie, E., Kataoyak, F., Loring, E., Meakin, S., Nickels, S., Shappa, K., Shirley, J., & Wandel, J. (2009). Community collaboration and climate change research in the Canadian Arctic. *Polar Research*, 28(1), 10–27. https://doi.org/10.1111/j.1751-8369.2008.00094.x
- Potts, K., & Brown, L. (2005). Becoming an anti-oppressive researcher. In L. Brown & S. Strega, *Research as Resistance: Critical, Indigenous and Anti-Oppressive Approaches* (pp. 255–285). Canadian Scholars' Press.

- Protection of the Arctic Marine Environment & Arctic Council. (2021). Meaningful engagement of Indigenous peoples and local communities in marine activities: A reference guide. https://oaarchive.arctic-council.org/handle/11374/2650
- Pulsifer, P., Gearheard, S., Huntington, H. P., Parsons, M. A., McNeave, C., & McCann, H. S. (2012). The role of data management in engaging communities in Arctic research: Overview of the exchange for local observations and knowledge of the Arctic (ELOKA). *Polar Geography*, 35(3–4), 271–290. https://doi.org/10.1080/1088937X.2012.708364
- Restoule, J. (2008). The five R's of Indigenous research: Relationship, respect, relevance, responsibility, and reciprocity [Workshop]. Wise Practices II: Canadian Aboriginal AIDS Network Research and Capacity Building Conference, Toronto, Ontario, Canada.
- Sadowsky, H., Brunet, N. D., Anaviapik, A., Kublu, A., Killiktee, C., & Henri, D. A. (2022). Inuit youth and environmental research: Exploring engagement barriers, strategies, and impacts. *FACETS*, 7(1), 45–70. https://doi.org/10.1139/facets-2021-0035
- Simpson, A. (2014). *Mohawk interruptus: Political life across the borders of settler states*. Duke University Press.
- Simpson, L. R. (2004). Anticolonial strategies for the recovery and maintenance of Indigenous knowledge. *American Indian Quarterly*, 28(3/4), 373–384. https://www.jstor.org/stable/4138923
- Sjöberg, Y., Gomach, S., Kwiatkowski, E., & Mansoz, M. (2019). Involvement of local Indigenous peoples in Arctic research—Expectations, needs and challenges perceived by early career researchers. *Arctic Science*, 5(1), 27–53. https://doi.org/10.1139/as-2017-0045
- Smith, L. T. (1999). *Decolonizing methodologies: Research and Indigenous peoples* (First). Bloomsbury Publishing.
- Snow, J. (2005). These mountains are our sacred places: The story of the Stoney Indians. Fifth House.
- Soedirgo, J., & Glas, A. (2020). Toward active reflexivity: Positionality and practice in the production of knowledge. *PS: Political Science & Politics*, *53*(3), 527–531. https://doi.org/10.1017/S1049096519002233
- TallBear, K. (2014). Standing with and speaking as faith: A feminist-Indigenous approach to inquiry. *Journal of Research Practice*, 10(2), Article N17. http://jrp.icaap.org/index.php/jrp/article/view/405/371
- The First Nations Information Governance Centre. (2022). *The First Nations Principles of OCAP®*. https://fnigc.ca/ocap-training/
- Tondu, J. M. E., Balasubramaniam, A. M., Chavarie, L., Gantner, N., Knopp, J. A., Provencher, J. F., Wong, P. B. Y., & Simmons, D. (2014). Working with northern communities to build collaborative research partnerships: Perspectives from early career researchers. *Arctic*, 67(3), 419–429. https://www.jstor.org/stable/24363792

- Truth and Reconciliation Commission of Canada. (2015). *Truth and reconciliation commission of Canada: Calls to action*. Truth and Reconciliation Commission of Canada. https://nctr.ca/records/reports
- Tuck, E., & McKenzie, M. (2015). *Place in research: Theory, methodology, and methods.* Routledge, Taylor & Francis Group.
- Waiser, W. A. (1995). Park prisoners: The untold story of Western Canada's national parks, 1915–1946. Fifth House Publishers.
- Watkins, M., & University League for Social Reform (Eds.). (1977). *Dene Nation, the colony within*. University of Toronto Press.
- Wheatley, B., & Wheatley, M. A. (2000). Methylmercury and the health of Indigenous peoples: A risk management challenge for physical and social sciences and for public health policy. *Science of The Total Environment*, 259(1–3), 23–29. https://doi.org/10.1016/S0048-9697(00)00546-5
- Wilson, S. (2008). Research is ceremony: Indigenous research methods. Fernwood.
- Wong, C., Ballegooyen, K., Ignace, L., Johnson, M. J. (Gùdia), & Swanson, H. (2020). Towards reconciliation: 10 Calls to Action to natural scientists working in Canada. *FACETS*, 5(1), 769–783. https://doi.org/10.1139/facets-2020-0005
- Woolston, C. (2021). Discrimination still plagues science. *Nature*, 600(7887), 177–179. https://doi.org/10.1038/d41586-021-03043-y
- World Health Organization. (2020). Ethical standards for research during public health emergencies. https://www.who.int/blueprint/priority-diseases/key-action/liverecovery-save-of-ethical-standards-for-research-during-public-health-emergencies.pdf?ua=1