

The University of Winnipeg Equity, Diversity, and Inclusion in Research Manual  
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and Research

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## Land Acknowledgement

The University of Winnipeg's Office of Research and Innovation acknowledges that UWinnipeg is located on Treaty One Territory and the National Homeland of the Red River Métis, in Wiiniibak, Manido Abi. We acknowledge these are the ancestral lands of the Anishinaabeg, Anisininew, Ininiwak/Nehethowuk, Oceti Sakowin/Dakota Oyate, and Michif (Métis) Peoples. This territory is also a place of significance for the Denesuline and the Inuit, some of whom have been living here for generations.

We acknowledge Treaty 3 territory and the Anishinaabeg of Shoal Lake 40 First Nation who have been displaced to supply water to the City of Winnipeg.

We also acknowledge Treaty 5 territory, the home of the Ithiniwak and Ininiwak from Chemawawin, Kinosao Sipi, Kischewaskahegan, Makaso Sakahigan, Marcel Colomb, Mathias Colomb, Misipawistik, Nisichawayasihk, Opaskwayak, O-Pipon-Na-Piwin, Pimicikamak, Pukatawagan, and Tataskweyak. The Missinipi (Churchill River) and the Powinigow (Nelson River) run through this land, providing most of Manitoba's hydroelectricity. Hydroelectric dams and river diversions have resulted in the flooding and displacement of these communities and the destruction of their traditional livelihoods and wellbeing.

As an Office of Research and Innovation within the colonial structure of the university, we recognize that academic research has historically and often still extracts knowledge and resources from Indigenous Peoples and their lands without meaningful collaboration or reciprocity. Our office commits to supporting ethical research with Indigenous Peoples and by Indigenous Peoples for the benefit of Indigenous Peoples. We specifically commit to:

- Raise awareness of and create funding opportunities that foster and recognize Indigenous research and ensure Indigenous and allied researchers are fully supported in their applications
- Prioritize support for and with Indigenous scholars across campus to ensure the services provided meet their needs and facilitate their research success
- Foster mentorship and belonging for new Indigenous faculty through the BIPOC Mentorship Network
- Implement training on anti-colonial and Indigenous research for the University Human Research Ethics Board, the Research Committee, the Research Nomination Committee, and the Student Research Committee
- Respect and support Indigenous data sovereignty and inclusive research data management practices with Indigenous communities and ensure that they are appropriately incorporated into research projects
- Honour cultural protocols for gifts and recognition of Indigenous knowledge
- Support the growth and enhancement of Indigenous student research programs, such as the Pathway to Graduate Studies and Indigenous Summer Scholars Programs
- Advocate for research assessment that values Indigenous ways of knowing and doing
- Advocate to granting agencies to better support Indigenous research

- Partner with the Office of Indigenous Engagement to provide ongoing opportunities for non-Indigenous scholars to learn how to conduct their research in a good way
- Take the responsibility to listen and learn when feedback is provided to work towards anti-colonial processes and supports

This is a living acknowledgement that will be revisited and revised over time to ensure that we remain self-reflexive and active in our commitments to anti-colonial practices in research.



## Introduction

This manual is intended for researchers at The University of Winnipeg seeking guidance on how to incorporate equity, diversity, and inclusion (EDI) principles into their research design and practice, including within their grant applications.

EDI, in addition to anti-racism and decolonization, has become an increasingly significant lens through which to plan and implement research for more effective impact and to begin addressing the systemic barriers faced by equity-deserving groups (e.g., people from racialized groups/visible minorities, 2SLGBTQ+ people, Indigenous peoples, people with disabilities, women and gender-diverse people, ethnic minorities, religious minorities, etc.). Incorporation of EDI into research programs and projects is progressively becoming more mandatory in Tri-Agency grant applications, and Canadian universities are now working toward being more self-reflexive and meaningful about how they apply these principles throughout their communities, including by endorsement of the [Dimensions Charter](#). The University of Winnipeg endorsed this charter in 2019 and was part of the [pilot cohort of Canadian postsecondary institutions](#) that helped develop the framework for the Dimensions recognition program. The University of Winnipeg also received Stage 1: Foundation recognition from Dimensions, which means that the institution is in the early stages of strategically addressing EDI in a coordinated way and has established a strategy for collecting representational data.

You may use this EDI in Research Manual on its own or as a supplement to The University of Winnipeg EDI in Research Certificate program.

## Chapter 1: What is EDI and Why is It Necessary in Research?

The terms equity, diversity, and inclusion are constantly evolving and can be context-specific. In the research ecosystem, they speak to the systemic barriers that prevent equity-deserving groups (e.g., women and gender-diverse people, Indigenous Peoples, racialized people, 2SLGBTQ+ people, people with disabilities, etc.) from leading and participating in research. When these diverse groups and their perspectives are excluded from research, biases can impact the way knowledge is collected, contextualized, and constructed, resulting in findings that only benefit the dominant population and/or cause harm to equity-deserving groups. Without considering EDI in research, dominant knowledges and worldviews (e.g., colonial, Western, patriarchal, heteronormative, ableist) are perpetuated alongside the societal power imbalances they uphold and normalize.

To read more about EDI in the Canadian research ecosystem, see the Government of Canada's [Dimensions Charter](#).

### Definitions

The following definitions are taken from the Tri-Agency Dimensions Handbook (2022):

**Equity** is when the environment allows all to have equal opportunity. It can also be understood as removing systemic barriers and biases, enabling all individuals to have equal opportunity to access and benefit from the program. To achieve this, all individuals who participate in the research ecosystem must develop a strong understanding of the systemic barriers faced by individuals from equity-deserving groups (e.g., Women, persons with disabilities, Indigenous Peoples, visible minorities/racialized groups, individuals from the LGBTQ2+ community) and put in place impactful measures to address these barriers.

**Diversity** is defined as differences in race, colour, place of origin, religion, immigrant and newcomer status, ethnic origin, ability, sex, sexual orientation, gender identity, gender expression and age. A diversity of perspectives and lived experiences is fundamental to achieving research and training excellence.

**Inclusion** is defined as the practice of ensuring that all individuals are valued and respected for their contributions and are equally supported. Ensuring that all team members are integrated and supported is fundamental to achieving research and training excellence.

### Other Key Terms

**Anti-colonialism** is a way to describe land relations in opposition to colonial systems, practices, and values, which are based on extraction and exploitation.

**Antiracism** is the “active process of identifying and eliminating racism by changing systems, organizational structures, policies and practices and attitudes, so that power is redistributed and shared equitably” (National Action Committee on the Status of Women International

Perspectives<sup>1</sup>). Antiracism is a verb—it is taking action against racism at the individual, interpersonal, institutional, and structural levels.

**Criticality** is the ongoing process of assessing and critiquing society in order to make visible power structures and how they operate to advance some while truncating others.

**Decolonization** is about “cultural, psychological, and economic freedom” for Indigenous peoples with the goal of achieving Indigenous sovereignty—the right and ability of Indigenous peoples to practice self-determination over their land, cultures, and political and economic systems (Belfi & Sandiford, 2021).<sup>2</sup>

**Equity-deserving groups** are groups of people who have been historically disadvantaged and underrepresented. These groups include the four designated groups in Canada — women, visible minorities, Indigenous Peoples, and people with disabilities — and people in the 2SLGBTQ+ community with diverse gender identities and sexual orientations, as well as religious and ethnic minorities. As the Dimensions Handbook states, “Equity-deserving groups identify barriers and unequal access, and actively seek social justice and reparation.”

**Positionality** claims that the “position of an individual is informed by multiple identities (such as race, gender, and class) that simultaneously construct and reinforce individual perspectives” (Kezar & Lester, 2010).

#### EDI and Social Position

A person’s social position impacts how they socially construct the world, and how the world perceives and treats them. Understanding this positionality is key to recognizing one’s own biases and privileges and working to mitigate these biases while using one’s privileges to dismantle systemic barriers.

Complete the **Social Identity Profile** exercise in **Appendix 1**. After completing the exercise, ask yourself the following questions:

**Belonging**—Where do you feel like you belong? Don’t fully belong? Why?

**Flourishing**—What does flourishing look like to you? What do you need to flourish?

**Justice**—How is access to resources distributed across society? How can we ensure that everyone has equal economic, social, and political rights and opportunities?

**Oppression**—What are the ways that oppression shows up in your workplace? When have you witnessed and/or experienced oppression? How does this relate to your social identity(ies)?

**Power**—Which of your social identities give you power and where?

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<sup>1</sup> Widespread quote, possibly in reference to the [1994 conference](#) of the [National Action Committee on the Status of Women](#)

<sup>2</sup> However, it also important to note that decolonization is often used as a metaphor, as Eve Tuck and K. Wayne Yang have argued in their 2012 article. Using decolonization as a metaphor for social justice—and not as a means of “repatriation of Indigenous land and life” —does not and cannot bring about Indigenous sovereignty and serves as another form of settler appropriation.

**Privilege**—What cultures and values are rarified and/or normalized? How does this relate to your own social identities?

Now take a look at how social identity influences your scholarly work and research.

- What/who defines expertise in your field or discipline?
- What are some of the assumptions in your discipline?
- How is knowledge produced and disseminated?
- What types of knowledge is valued? Marginalized?
- What kinds of metaphors are used and how are they used?
- In what ways does your discipline reflect who you are? In what ways not?

In considering your responses, you will begin to see that all knowledge and knowledge production is situated (Haraway, 1988) and that knowledge and cognitive approaches are embedded in culture, which also intersects with ethnicity and race (Medin, 2017). While the idea that knowledge and data are all subjective is often not one held in science, cognitive science scholars Douglas L. Medin and Megan Bang demonstrate that “[d]espite the widely held view that science is objective, value-neutral, and acultural, scientists do not shed their cultures at the laboratory or classroom door; their practices reflect their values, belief systems, and worldviews” (Medin & Bang, 2014).

Because everyone brings their own experiences, cultures, and worldviews to knowledge, research projects and teams benefit greatly from diversity, which leads us into why EDI is necessary in research.

#### Why Do We Need EDI in Research?

- More **innovative** research – studies have shown that research conducted by more diverse teams leads to more innovative research due to the diversity of perspectives and abilities of the researchers. Research has shown that teams comprised of people with diverse knowledge and cognitive approaches innovate at higher rates (Brixy et al., 2020) and contribute to creative problem solving (Sulik et al., 2021). Research has also shown that systemic barriers for racialized people in research funding systems and review can curtail innovation (see **Figure 1** below).

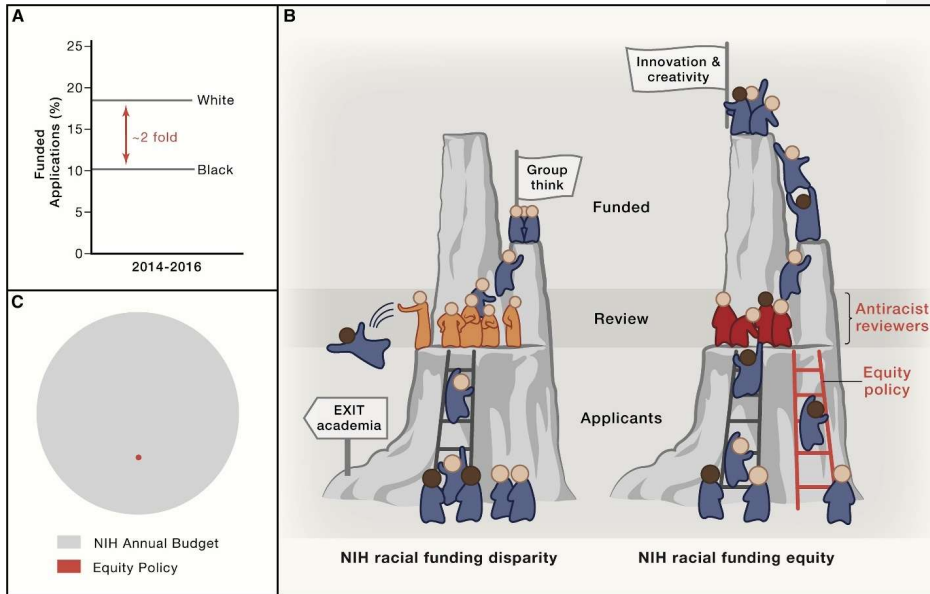


Figure 1: Stevens, K. R., Masters, K. S., Imoukhuede, P. I., Haynes, K. A., Setton, L. A., Cosgriff-Hernandez, E., ... & Eniola-Adefeso, O. (2021).

- **More impactful** research – studies have also shown that research conducted by more diverse teams leads to findings that are more applicable to more segments of the population (Yang et al., 2022) and have more scholarly impact (AlShebli et al, 2018).
- **Social justice** – conducting research with EDI in mind is also a moral imperative that enables people who face barriers due to biases and discrimination based on their identities to flourish. For example, although diverse underrepresented people innovate at higher rates, their innovations are not taken up and expanded upon at the same rate as their dominant culture (white male) peers (Hofsta et al., 2020). In short, it's the right thing to do.

### Research Design versus Research Practice

*Research design* and *research practice* are terms used by the Tri-Agency to distinguish between how you've designed your project with EDI in mind and how you are going to practice EDI in your day-to-day research operations, respectively.

As shown in **Figure 2** below, EDI in research design means these principles are integrated throughout the entire research process from questions to dissemination.



Figure 2: Diagram of the research process from NSERC ([https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Politiques-Politiques/EDI\\_guidance-Conseils\\_EDI\\_eng.asp](https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Politiques-Politiques/EDI_guidance-Conseils_EDI_eng.asp))

In contrast, EDI in research practice encompasses the environment in which you conduct your research, including your team and trainees (see **Figure 3**).



Figure 3: Diagram of components of research practice

## Chapter 2: EDI in Research Design

### 2.1 Introduction to EDI in Research Design

When thinking about incorporating equity, diversity, and inclusion (EDI) into your research design, the primary question to ask is “How will you incorporate EDI principles into the entire plan and processes of your project, including your proposal/project description in grant applications?”

There are a number of ways in which you can do this:

- **Literature review and research context** – who do you cite? Are your citations from diverse people and sources? Are you practicing citational justice?
- **Theoretical frameworks** – do you mainly use Western ways of knowing for your theoretical frameworks? Do you include theoretical frameworks that have been developed by equity-deserving groups like women, people of colour, or people with disabilities? Can you approach your research with an anti-racist or anti-colonial framework?
- **Methods and methodologies, including research ethics** – are your methodologies based only on Western epistemologies? Do they draw from methods developed by equity-deserving groups? Are your methods going to make all participants feel included and safe? Are you respecting the cultural context and value systems of the populations you’re researching when implementing your methods?
- **Knowledge mobilization/translation plan** – who are your audiences for knowledge mobilization and research findings? Are they diverse? Whom might be impacted by your research but are currently excluded from your knowledge translation plan?
- **Expected outcomes/impact** – are your expected outcomes only benefiting those from dominant groups? How might you ensure your impact is inclusive of equity-deserving people?
- **Data management plan** – whose data are you collecting? Are any of your data from equity-deserving people, including Indigenous Peoples? Have you considered who should ethically own, control, and be able to access the data?
- **Significant research contributions/experience** – have you used EDI in your research contributions before? Can you highlight any experience you have in practicing EDI in your research projects and environment?

### 2.2 Citational Politics and Justice

we must ask how the cited works of some black scholars enable a new humanism, planetary humanism, radical theories of liberation, poetics of relation, a new worldview, and therefore refuse the crude capital economization of collated names standing in as ideas. I do not believe that citation, as a practice that includes or excludes, is useful. I

am not interested in citations as quotable value. I want to reference other possibilities such as, citations as learning, as counsel, as sharing. I say this because, after many years of thinking about referencing practices, I am pretty certain that much of the work in black studies does not cite books and articles and ideas and music and art in order to quickly and uncritically authorize the author's project. Much of black studies is not written for the impact factor. . . . I believe, instead, that referencing in black studies is a lesson in living.

- Katherine McKittrick, *Dear Science and Other Stories*

This section explains what citational politics are, why they are necessary for EDI in research design, and how you can practice citational justice by amplifying diverse voices.

### **What are citational politics?**

All research is situated in a particular context, whether within the field/discipline or wider societal settings. Scholars are trained to cite their sources to build a case for their argument or hypothesis, thereby signaling the integrity, originality, and relevance of their research. Therefore, “[c]itation is taken as an assumed proxy for measuring impact, relevance, and importance, with implications not only for hiring, promotion, tenure, and other aspects of performance evaluation, but also for how certain voices are represented and included over others in intellectual conversations” (Mott & Cockayne, 2017).

Some key points about citational politics:

- Citations are never neutral.
- They generate and uphold epistemologies and canons.
- They contribute to the reproduction of power structures and systemic discrimination.
- Biases in citational practice perpetuate barriers and systemic inequities in a self-fulfilling loop (e.g., biases in citation and academic publishing are reproduced in the biases of search algorithms for research relevance and metrics, number of citations are the most important single factor for ranking in Google Scholar).

### **What are some common citational biases?**

- Requiring location of contributions within canons – Sara Ahmed and other feminists of colour have pointed out that this requirement often leads to exclusively citing white men, and Indigenous academics are often asked to cite the work of white male scholars, even if it is unrelated to the topic
- Citational tokenism – means the same source is cited repeatedly for the sake of demonstrating that one is aware of a work but then does not engage further with it
- Undercitation – equity-deserving scholars are systemically undercited, despite their productivity, contributions, and leadership in the field, and it can be related to “objective” or “identity blind” citations ostensibly only based on relevance to research
- Citation styles – styles such as APA and Harvard don't include first names, which can obscure gender, albeit determining gender via name is still a fraught exercise

- Citation cartels – these can be defined as groups of authors that cite each other disproportionately more than they do other groups of authors that work on the same subject to inflate their citations and therefore garner more perceived impact, one of the ways to game the system of bibliometrics
- Plagiarism – not citing equity-deserving scholars when appropriating their ideas and work
- Cite-Me Cite – peer reviewers and editors who explicitly tell a researcher to cite them before approving or accepting their work (Kumar and Karusala, 2021)
- Name-Agnostic Cite (i.e., “Other authors [x] have studied...” – this happens where names that are hard to recognize or generally unfamiliar are Othered while Western names are explicitly listed (Kumar and Karusala, 2021)
- In-the-Global-South and Unrelated-to-the-North Cite (i.e., “This area has been studied in the Global South [x]...” or “...studied extensively in the Global South but not relevant to our study [x]...” ) - citations such as these can reinforce a lack of visibility of works produced in the Global South, and perpetuate engagement with only Western-centric scholarship (Kumar and Karusala, 2021). This bias can also appear for sources from what is now called the Global East, which includes the Balkans and other former Soviet countries.

#### **What are the impacts of citational biases?**

- Gaps in knowledge – these gaps are the result of the systemic citational biases and undercitation that may be as Sara Ahmed says, “unintended.” However, as she goes on to write: “Citational privilege [is] when you do not need to intend your own reproduction. . . . You have to do more not to reproduce whiteness than not to intend to reproduce whiteness.”
- Epistemicide – intentional knowledge gaps via systematic silencing and erasure directed at non-Western ways of knowing
- Less innovative, relevant, and impactful research – when gaps exist,
- Maintaining barriers for equity-deserving scholars’ advancement
- Lack of visible mentors for students and early career researchers from equity-deserving groups
- Bibliometric impacts

#### **What can you do to amplify diverse voices?**

- Audit your lists of references<sup>3</sup>
- Run your bibliography or reference list through the [Gender Balance Assessment Tool](#)
- Investigate databases like [Diverse Sources](#), [Intersectionality Inequalities in Science](#), [iPortal Indigenous Studies Research Tool](#), and [Cite Black Authors](#) and other discipline-

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<sup>3</sup> In auditing your references, be careful about making assumptions about identity.

specific lists like the Multiply Marginalized and Underrepresented or [MMU Scholar List](#) for technical communication and related fields, [Women in Soil Science](#), [CiteHER Bibliography in Computing](#), and [Women in Neuroscience](#); if you identify as equity-deserving, contribute your work to these databases

- Gather information about biases in the form of distributions within your field, such as gender, race, or language<sup>4</sup>
- Explore new types of information sources, including audio-visual materials
- Append a [Citation Diversity Statement](#) to your papers; ask yourself
  - Who are the authors included in your bibliography? Do you know their backgrounds and identities?
  - Search online to see how authors self-identify-- don't assume based on name or picture
  - Track your own citation trends-- do you see any recurrences in where you look and what voices you're gathering?
  - Include evidence and voices outside of peer-reviewed literature-- how diverse are your source types?
- Practice positionality, citational equity, and cultural respect in your publications
- Be critical about the extent and risks of using "ranking by relevance" when carrying out literature searches online, especially for systematic reviews
- Proactively consider fleshing out ideas from equity-deserving researchers early in the problem formulation and/or research question stage, so that in fact work from equity-deserving groups is central to your questions
- Reflect on whether you discuss the work of men and women or gender-diverse people differently
- Consider anti-colonial citational practices (see below)
- If you edit or peer review for an academic journal, advocate for citational justice
- Commit to offering a balanced view of the field as it stands and an increasingly equitable view of the field as it grows when teaching courses and mentoring others
- Teach your students and research assistants about citational politics

### **Anti-colonial Citational Practices**

#### **Intentional and Visible Positionality in Citational Practice**

Max Liboiron is a Red River Métis Professor of Geography at Memorial University who, along with their Civic Laboratory for Environmental Action Research, works on anti-colonial, feminist interventions into research methods and practice.

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<sup>4</sup> Recognize that equity-deserving scholars can speak to any topic that does or does not tie directly to their identity.

In their book *Pollution is Colonialism*, they explicitly intervene in citational practice from an Indigenous and anti-colonial standpoint. It's of value to quote a lengthy excerpt of the rationale for their way of introducing those who are being referenced:

It is common to introduce Indigenous authors with their nation/affiliation, while white settler and white scholars almost always remain unmarked. . . . This unmarking is one act among many that re-centres settlers and whiteness as an unexceptional norm, while deviations have to be marked and named. . . . This led me to a methodological dilemma. Do I mark everyone? No one? I thought about just leaving it, because this is difficult and even uncomfortable to figure out, but since this is a methods text, I figured I should shit or get off the pot. Feminist standpoint theory and even truth and reconciliation processes maintain that social location and the different collectives we are part of matter to relations, obligations, ethics, and knowledge. Settlers have a different place in reconciliation than Indigenous people, than Black people who were stolen from their Land. . . . In light of this complex terrain, my imperfect methodological decision has been to identify all authors the way they identify themselves . . . the first time they appear in a chapter. If an author does not introduce themselves or their land relations, I mark them as "unmarked." I do this rather than marking settlers as settlers because of the advice of Kim TallBear . . . , who encourages people to look at structures of the settler state rather than focusing on naming individual settlers, which reenacts the logics of eugenicist and racist impulses to properly and finally categorize people properly. . . . I take up this method so we, as users of texts, can understand where authors are speaking from, what ground they stand on, whom their obligations are to, what forms of sovereignty are being leveraged, what structures of privilege the settler state affords, and how we are related so that our obligations to one another as speaker and listener, writer and audience, can be *specific enough to enact obligations to one another*, a key goal of this text. . . . Introducing yourself is part of ethics and obligation, not punishment. ()

An example of Liboiron's method:

Two engineers in the brand-new field of sanitation engineering named Earle B. Phelps and H. W. Streeter (both unmarked) created a scientific and mathematical model of the conditions and rates under which water . . . could purify itself of organic pollutants. (3-4)

Again, Liboiron has shared their work with collaborators at CLEAR to demonstrate a more equitable method of author order in publication, which also intervenes in citational politics.

- Author order emphasizing "process and equity rather than system and equality" (Liboiron et al., 2017), which goes against the norms in STEM practices
  - Deciding author order through consensus in spite of inherent power imbalances between tenured faculty, non-tenured faculty, and students
  - Valuing care work and other forms of labour that are usually excluded from scientific value systems – here the authors define care work as training new members on protocols, maintaining equipment, cleaning up, contributing to logistical tasks like note taking, scheduling, sending email reminders and booking rooms, caring for members' physical and mental health by listening, and thanking each other.

- Taking intersectional social standing into account – this means considering non-academics as valuable and full collaborators, looking at who needs the cultural capital most at this time, payment status, and considering promoting new, unsung, non-profit, or underfunded organizations and universities.

### Citing Indigenous Elders and Knowledge Keepers

In her article “More Than Personal Communication: Templates For Citing Indigenous Elders and Knowledge Keepers,” Lorisia MacLeod introduces citation templates for Indigenous Elders and Knowledge Keepers that she created in partnership with the staff of the NorQuest Indigenous Student Centre. These templates notably include some of the following directives that encompass respect, relationality, and context:

- If there is a title or status that the Knowledge Keeper would like included, then, following the same recommendations that APA gives for the Pope, that title or status can precede their name.
- If the name is written in an alphabet that is non-Latin script, that should be included.
- Include the Elder or Knowledge Keeper’s nation and/or community, and not just for personal communication in-text citation for Indigenous oral knowledge.
- Include Treaty Territory if applicable.
- Include a Brief Description or Title of the Teaching where information such as the familial provenance of the teaching could be included. For example, the citation might read: “Story about the sisters of the river as told to [Name of story keeper] by their grandmother [or the grandmother’s name].”

Significantly related to citation politics are the theories and frameworks you choose in designing your research questions. The next section will provide some examples of EDI-based theories and frameworks.

### 2.3 Theoretical Frameworks

The following is not an exhaustive list of theoretical frameworks for incorporating EDI into your research design but is meant to supply some prompts:

**Anti-Colonial Frameworks:** Anti-colonial theories and frameworks disrupt and counter colonial power structures and systems by recognizing one’s own positionality and privilege while using knowledges and methods that seek to equalize power, embrace humility, emphasize critical reflexivity, promote the participation and self-determination of research participants and communities, engage accountable relationships, give and share reciprocally, and share control and ownership of the research. Anti-colonial is distinct from decolonial or decolonizing

Commented [LW1]: Finish

**Critical Disability Theory:** Critical disability theory analyzes disability as a cultural, historical, relative, social, and political phenomenon rather than as a purely medicalized condition and challenges the ableist assumptions that shape our society.

**Critical Race Theory:** Critical race theory is an interdisciplinary academic field that Robert Delgado and Jean Stefancic define as “studying and transforming the relationship among race, racism, and power. It looks at a broad perspective that includes economics, history, setting, group and self-interest, emotions, and the unconscious. Unlike traditional civil rights discourse,

which stresses incrementalism and step-by-step progress, critical race theory examines the very foundations of the liberal order, including equality theory, legal reasoning, Enlightenment rationalism, and neutral principles of constitutional law.

Feminist Theory:

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**Indigenous Science:** Indigenous science is specifically science as conceptualized and practiced by Indigenous Peoples and should not be appropriated by non-Indigenous people. There are key differences between Indigenous and Western science, including teaching/learning styles and goals, approaches to the physical world, and humans and relationships to nature, with Indigenous science aiming to understand scientific knowledge for the sake of application and practice rather than knowledge for knowledge's sake and viewing humans as in equal relationship with all of nature rather than dominating and controlling it (Lipe).

**Intersectional Frameworks:** Intersectionality was coined by Kimberlé Crenshaw to . Intersectional theory and frameworks account for the compounding of marginalization or disadvantages for those who have identities that cross multiple equity-deserving groups (e.g., Black women, trans people with a mobility disability, etc.). Intersectional theories include Indigenous feminism, Afrofeminism, Crip Theory, and

**Queer Theory:** Queer theory is a post-structuralist theory that questions gender, sex, and sexuality norms in society, which have privileged heterosexuality and binary conceptions of gender and sex.

**Social Determinants of Health:** Social determinants of health are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies, and political systems.

Common among all of these theories and frameworks are critiques and examinations of the way equity-deserving groups are negatively impacted by Western, colonial, and patriarchal power structures and

## 2.4 Methods

Methods are . Methodologies are

Again, the following is not an exhaustive list of methods and methodologies, but they are meant to

Arts-based Research Methods

Community-based Research Methods

Critical Quantitative Methods

Gender-Based Analysis Plus

Sex- and Gender-Based Analysis Plus

Gendered Innovations

## Indigenous Research Methods

Indigenous ceremony

Sharing circles

Conversational method

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## 2.5 EDI in Research Ethics

In the Canadian context, the main guidance documents for research ethics are the [Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans or TCPS 2 \(2022\)](#) and the [Canadian Council on Animal Care's Guide to the Care and Use of Experimental Animals](#). The following  subsections focus on EDI in human research ethics. If you would like to find out more about non-human animal ethics, turn to page .

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### 2.5.1 EDI in Human Research Ethics

Within the TCPS 2, the term *equity* is used in Chapter 4 on Fairness and Equity in Research Participation alongside justice and fairness. Equity in this context is about distributing the benefits and burdens of research participation in such a way that no segment of the population is unduly burdened by the harms of research or denied the benefits of the knowledge generated from it. This chapter also provides guidance relevant to inclusion in research of specific groups such as women, children, the elderly, and those who lack the capacity to decide whether to participate in research. Article 4.1 specifically states, "Taking into account the scope and objectives of their research, researchers should be inclusive in selecting participants. Researchers shall not exclude individuals from the opportunity to participate in research on the basis of attributes such as culture, language, religion, race, disability, sexual orientation, ethnicity, linguistic proficiency, gender or age, unless there is a valid reason for the exclusion."

Article 4.7 of the TCPS 2 states that "Individuals or groups whose circumstances may make them vulnerable in the context of research should not be inappropriately included or automatically excluded from participation in research on the basis of their circumstances." This raises the ongoing issue of protection of "vulnerable" populations vs. equity, diversity, and inclusion (Gélinas et al., 2023). Another critique of research ethics guidelines such as the TCPS 2 is the argument of their universality, based on universal human rights, not being a fit for all (Msoroka & Amundsen, 2018).

Another major part of the TCPS 2 in relation to EDI is Chapter 9 on Research Involving the First Nations, Inuit, and Métis Peoples of Canada. The most important takeaway from this chapter is that this guidance is "not intended to override or replace ethical guidance offered by Indigenous peoples themselves." For more information on Indigenous research ethics, go to page .

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Finally, EDI applies to research ethics writ large, as in research design and practice and responsible conduct of research, even when your project does not require you to apply for ethics approval. However, it should also obviously be considered through each step of one's ethics application. Now to sum up how EDI can be defined in relation to research ethics,

**Equity:** Ensuring different populations have the supports, resources, and self-determination they need to participate in and benefit fully from the research

**Diversity:** Ensuring your samples are diverse

**Inclusion:** Ensuring different populations see themselves as potential participants in the research and can participate in a wholistically safe manner

**Why EDI is Necessary in Research Ethics**

EDI is important in research ethics for many of the same reasons that it is needed in research in general.

- It addresses the history of unethical research disproportionately conducted on those from equity-deserving groups (e.g., Indigenous Peoples, racialized people, people with disabilities, 2SLGBTQ+ people, women and gender-diverse people, etc.).
- It leads to sounder and more innovative research.
- It responds to moral imperatives and social justice.

EDI challenges remain at play as University Research Ethics Boards continue to act as gatekeepers, disadvantaging or delaying researchers from equity-deserving groups (Auger et al., 2023; Jonker et al., 2021).

While keeping EDI in mind throughout all steps of the research ethics process, think about the equity-deserving populations that may be impacted by your research and how they can be included respectfully and safely:

- 2SLGBTQ+ people (spectrum of sexualities)
- Indigenous Peoples (First Nations, Metis, and Inuit)
- People with disabilities (communication, developmental, dexterity, hearing, mental health, mobility, seeing, etc.)
- Racialized people
- Women and gender-diverse people
- Ethnic minorities
- Religious diversity
- Newcomers, refugees, and forced migrants
- Different ages (children, senior citizens)
- Bodily diversity
- Different geographies (rural vs. urban, Global North vs. Global South, etc.)
- Intersectionality between identities

The next table walks you through a series of questions to ask yourself when thinking through all parts of your research ethics, which can also help you draft your ethics application with EDI in mind.

Step in the Research Ethics Process	EDI Considerations
Research Design	Can you do this research by using existing data? – This question addresses the research fatigue often experienced by equity-deserving groups. If there are already existing data to

	<p>help you answer your research questions, it would be more ethical to start there.</p>
	<p>Has the population/community that you're studying asked for this research to be done? If not, why are you conducting it? - This question is key to understanding and confirming your motivations and whether they are community-driven or primarily for your own benefit and/or data for data's sake. It is here that you should also ask yourself about how you're framing your research question – is it solely assuming a deficit stance and that certain populations are in need of improvement?</p>
	<p>Whose theoretical frameworks are you using? Are they representative of those who will be participating in the study? – Here you should be thinking about whose theories you cite in framing your research. For example, if your research questions concern Black women and gender-diverse people, are you using Black feminist and queer theory to contextualize and understand your research questions and findings? Conversely, if you will be studying Indigenous children's health and wellbeing, are you including Indigenous epistemologies to understand and interpret what health and wellbeing mean to Indigenous Peoples, as well as the role of children in their worldview?</p>
	<p>Which methods are you using? Are they culturally relevant to your participants? - This question can include the validated scales you may be using and your methods of data collection and analysis. Again, what assumptions about what is being measured are you making in using certain methods? Whose values are these measurements based on?</p>
	<p>If you are using preexisting scales or measures, have you considered whether they are culturally appropriate and/or safe for the equity-deserving group? – There are many examples of researchers who have had to adapt or revise existing scales/measures for populations whose first language is not English, but there are also examples of scales that have had to be revised or developed from scratch to ensure they are more relevant to certain equity-deserving groups. One such example is the development of the Kimberley Mum's Mood Scale, which was specifically developed in collaboration with community for use with Aboriginal and Torres Strait Islander birthing people because the typically used Edinburgh Postnatal Depression Scale was deemed less relevant and effective for the population. This new scale was built on the values and epistemologies of the target population, including the high value placed on a trusting relationship with the administering health professional, time to yarn or tell stories, completing tools jointly (sitting side by side), and a strengths-based approach to follow-up.</p>
	<p>Have you adequately informed yourself of the history and current cultural context of your research community? – Here</p>

	<p>you need to think critically about how much of an outsider or insider you are in relation to the community you will be studying. If you are an outsider, how much do you know about the historical and current context and experiences of your research community? If you are an insider, how are you negotiating and signaling your sociocultural position in relation to the community? This background research and understanding is also required for ethically engaging with public data, as in social media posts and communities. For more advice here, read Shamika Klassen and Casey Fiesler's 2022 article, "This Isn't Your Data, Friend': Black Twitter as a Case Study on Research Ethics for Public Data."</p>
	<p>Have you built self-reflexivity, positionality, and cultural humility into your research design? Being self-reflexive about your position in relation to those you are researching is fundamental in identifying and mitigating your biases as you conduct and analyze your research. Being transparent about this process is also integral to addressing the inherent power dynamics in the researcher/researched relationship, as well as becoming more culturally competent and safe in your work with equity-deserving groups.</p>
	<p>If you are testing an intervention, what assumptions are you making? Could this intervention be seen as trying to "correct" or change core identity factors of the participants (e.g., autistic people, fat people, etc.) to make them fit into society rather than taking the position of adapting society for these populations? How are you defining "health" and "wellbeing"?</p>
	<p>How will you be selecting and training other team members or research assistants? Will you be debriefing with them and/or offering them specific supports? Will you be considering peer researchers? If so, how will you support them?</p>
	<p>Have you built a relationship and trust with the stakeholders, including partner organizations, in your research? Have you meaningfully engaged with people with lived experience who share identity factors with your targeted populations? Will they co-design and collaborate throughout the research? Will you maintain your relationship with them after the research project ends? Thinking about these relationships, especially as lasting beyond the length of the research project, is important in guarding against parachute and extractive research.</p>
	<p>If you will be working alongside partners and participants, have you built in culturally appropriate mechanisms for governance and conflict resolution? Have you considered drafting a Research Responsibility Agreement? – In thinking about this question, you will need to ascertain the extent to which you are working in collaboration and partnership with the communities and populations being studied and how formal or informal this collaboration needs to be. In some cases, you will need a formal partnership agreement, contract, or memorandum of understanding between your research</p>

	<p>team and the other organizations and/or communities involved in the project. In other cases, it may be more effective to have a Research Responsibility Agreement as described and developed by women's and gender studies scholars Melanie Murdock and Stephanie Erickson, which "invites all members of a research project to explicitly reflect on their role in the research, their relationships with other collaborators, their responsibility to contributing meaningfully in the project, and their plans to remain accountable to one another. In doing so, [it] adds to existing tools that support ethical research by sharing explicit reflections from all collaborators on how to prevent harm and by asking them to reflect on ethical practices beyond the initial stages of the project."</p>
<b>Inclusion/Exclusion Criteria</b>	<p>Will your sample be diverse given the inclusion/exclusion criteria you have developed? If not, give your rationale. I always recommend walking through the federal government's training on Gender-Based Analysis Plus to think carefully about whether your research requires more inclusivity or not. In taking the training, you will be making notes about why and how different identity factors need to be considered in your research project, and if it turns out that your project really doesn't need to take equity-deserving characteristics into account, then you have a documented rationale ready to go.</p>
	<p>Additionally, in thinking about your inclusion/exclusion criteria, have you taken intersectionality into account (i.e., respecting participants as whole persons)? Intersectionality means that some participants will belong to more than one identity group, which may compound their experiences of marginalization or underrepresentation.</p>
	<p>Are you excluding certain populations out of convenience or perceived vulnerability? If so, think critically about this vulnerability and what assumptions you are making.</p>
	<p>How is identity for inclusion being defined? Does it need to be a current identity or are past identities valid? This question is especially important in research about 2SLGBTQ+ populations with gender and sexual diversity that may change over time. Although this question could also concern those who had a disability for a particular time in the past or have just recently been diagnosed or assessed. It's also an important question for those whose immigration/newcomer status has changed over time.</p>
	<p>Do your eligibility criteria explicitly allow for and provide both common and custom supports for participation, using language that recognizes participants' agency? While you will need to address the provision of supports in your recruitment materials, it is also important to signal this within your eligibility criteria as well.</p>
	<p>Are your eligibility criteria vague (e.g., excluding "people who may be unable to complete the study")? Vague criteria like this</p>

	could discourage those who may be able to complete the study with the appropriate accommodations or adjustments.
	Are you allowing for the community insiders to define and determine who is included in the community impacted by the research question? Are you considering that this definition may change over time? Here it is important to recognize that community is often challenging to define, and therefore, relationships and experience with being among the particular community become hugely important in ensuring that you are being sufficiently inclusive.
	Are you conflating different identity factors in defining your inclusion criteria (e.g., gender expression and gender identity, sexual identity and sexual behaviour, Two-Spirit and gender and/or sexuality)? These criteria are nuanced and should be carefully decided in relation to your research question.
<b>Risks vs. Benefits</b>	Are the proposed benefits relevant to your knowledge users and/or participants? This question relates back to the question about whether a community has asked you to conduct this particular research project or not.
	Are you being paternalistic or discriminatory in assessing risk? Are your conceptions of risk replicating existing power imbalances and structural inequalities?
	Are the proposed benefits connected to suppressing or eliminating non-harmful characteristics or behaviours (i.e., "passing demands") of a particular equity-deserving group? In their article about evaluating harm and benefit in autism research, Ari Ne'eman and colleagues contend that "many existing measures of benefit relied upon in autism research and intervention are not appropriate tools for this purpose, as they define progress in terms of the reduction of autistic traits that pose no harm to the autistic person rather than the mitigation of intrinsic harm or promotion of more meaningful goals" (2). This means that many research interventions for autism are predicated on suppressing autistic traits such as hand flapping or atypical eye contact, in other words, requiring their participants to mask, thereby causing stress and harm rather than providing more meaningful supports and strategies.
	Do your proposed benefits include capacity building or usable resources for your knowledge users/participants? This question helps you ensure that you are being reciprocal in your relationship with your research partners and participants. These benefits could include training of community members to become researchers themselves, thereby enhancing their agency.
	Have you considered different epistemologies, ethical frameworks, and value systems in identifying and contextualizing risks and benefits for the communities being engaged (e.g., what might constitute physical abuse from dominant ethics standards may represent a shared conception

	<p>of social justice [Oyinloye], how a specific religion understands the ethics of clinical research with children [AlFattani and AlAlam], etc.)? By taking different epistemologies and value systems into account, you will likely have better success in interacting with your participants and ensuring that your research is both understandable and relevant to your affected communities.</p> <p>Have you considered whether overburdening the community and/or partner organizations is a risk? Here the focus is less on the risk to an individual, but to the collective, which is often not taken into consideration in neoliberal university structures.</p> <p>Finally, if you are using public data, such as social media posts, have you weighed attribution versus privacy risks? Here you will want to negotiate between the benefits of attribution for participants in providing both credit and agency and the risks of breaching participants' privacy.</p>
<b>Recruitment</b>	<p>Are your recruitment materials inclusive? Have you used gender-neutral language? Have your materials captured the diversity of experience within a broader equity-deserving group (e.g., 2SLGBTQ+, questioning, and non-gender binary terms to capture a variety of queer experiences, etc.)? What kinds of imagery/graphics are you using? Will the target participants recognize themselves in the materials?</p> <p>Are you making any assumptions about experiences and roles as they relate to certain identity groups (e.g., women as mothers, newcomers as racialized, etc.) in where and how you recruit participants?</p> <p>Are your recruitment materials accessible? Do you need to translate your materials into languages other than English? Have you offered to provide questionnaires in advance of interviews/focus groups and offered to accept responses after the interviews/focus groups? This practice can particularly support those with neurodivergence as they may need longer to process their thoughts about questions or may not feel comfortable responding within a group. Have you offered a chance for participants to identify any accessibility needs they require to participate fully? Are you recruiting through both in-person and Internet-based modes?</p> <p>Are you ensuring that all participants have an equitable chance to be recruited? Will you provide supports for transportation and/or childcare to facilitate participation? Would it be easier for participants if the researchers traveled to them? Are you offering flexible times for participation?</p> <p>If recruiting through social media, have you considered how to prevent and/or address discriminatory comments/posts in response to your ads (e.g., homophobic, racist, etc.)? Here you may want to post only to private groups and their networks.</p> <p>If you are using service providers and/or external organizations to recruit participants, are they making it clear</p>

	that services will not be withheld or changed if people do not want to participate in the research?
	Will you practice transparency about which individuals/organizations are selected to represent the populations you are studying? For example, the Canadian Professional Association for Transgender Health Ethical Guidelines for Research Involving Transgender People & Communities states, "This includes attention to multiple identities such as race and class, as well as attention to gender diversity including people who identity as on the transfeminine or transmasculine spectra, non-binary, agender or other similar identities."
<b>Consent</b>	Are you offering informed consent in multiple, accessible formats beyond written (e.g., oral, use of supportive technologies, video records of the process, etc.)? Are you explicitly offering accommodations to complete consent? Is individual consent appropriate here? This last question refers to the fact that some communities regard their knowledge and participation as being collective, so seeking individual signed consent is ethically inappropriate.
	In the cases where participants may not be able to consent verbally or in writing, will you consider using other cues to gauge consent (e.g., body language, facial expressions, etc.)? Will you engage the assistance of those who know the participants best (e.g., caregivers, service providers, etc.)?
	Will your participants benefit from a rolling or process consent model with repeated check-ins? This model may work well with children and those with intellectual disabilities.
	In determining capacity for consent, have you considered the person's ability to engage in everyday decision-making? This question is particularly important when researching those with profound intellectual disabilities to ensure you are not unnecessarily excluding such participants and are not denying them agency through biased assumptions.
	If studying those under 18 years old, especially in cases where participants' parents/guardians may pose a threat of harm (e.g., parents/guardians of 2SLGBTQ+ children/youth, parents/guardians of autistic children/youth, etc.), have you considered allowing older youth to consent on their own behalf (based on their health literacy, not age)? Have you considered requiring ongoing assent from child participants where parental/guardian consent is required? Have you considered a waiver of parental/guardian consent from the REB to allow for participation of youth who have not disclosed their gender identity/sexuality to their parents/guardians? There are also a number of alternative ways to gain informed consent of young people, including the use of youth advocates, as suggested in an article by Jennifer Patrice Sims and Cassandra Nolen. These youth advocates are trained mental health professionals working at community sites and are used in lieu

	<p>of parental consent. They are responsible for answering questions about the research and ensuring that the youth are not pressured into participating.</p> <p>In your consent information have you explained why particular identity data are being collected? Have you explained who will be analyzing the data and for what purpose? This information is particularly helpful considering many equity-deserving groups can be distrustful of research due to past unethical experiences and misinterpretations and misrepresentations of data.</p>
<b>Anonymity/Confidentiality</b>	<p>If you are providing anonymity for participants, could this be viewed as patronizing underrepresented voices? Could you offer your participants the opportunity to be named/identified in the research for the purposes of empowerment and agency?</p>
	<p>Have you considered carefully whether information that may seem anonymized to clinicians and researchers may not be anonymous for certain smaller populations (e.g., trans people in smaller cities or with other identify factors like ethnicity, etc.)?</p>
	<p>Have you planned for cases in which participant disclosures may run into conflict with legislation or professional duties to report (e.g., forced migrants revealing sympathy with objectives of groups deemed to have terrorist aims, etc.)? Can you avoid collecting potentially incriminating data in such cases?</p>
	<p>Have you ensured that if some participants want to be identified, that others in the study will not be inadvertently identified?</p>
	<p>If your sample for a particular identity group is small, have you considered reporting on their data separately from the primary analysis (e.g., footnote, supplemental file, etc.)? This practice can be useful in ensuring that certain underrepresented populations are not simply erased from the research.</p>
<b>Incentives/Compensation</b>	<p>If you have set up a community-based advisory group, are you fairly compensating them for their time? Unlike the academic members of a research project, community-based members are usually taking time away from either their paid work or their personal time to participate or advise on research projects. As such, they need to be compensated.</p>
	<p>If you are inviting Indigenous Elders and Knowledge Keepers to participate in the research, are you ensuring the honoraria are commensurate with their knowledge and expertise? Are you providing the appropriate reimbursements in a culturally respectful timeframe? This means that you should be ready to give honoraria and travel reimbursements at the time the Elders or Knowledge Keepers participate and not afterwards. This culturally respectful practice often faces barriers in university financial departments who do not want to prepay and prepare cheques upfront.</p>

	<p>Have you considered differential compensation when it is justified by some participants contributing more time, having greater barriers to participation, and/or are a harder-to-reach group than others? Here is where fair compensation can come into conflict with REBs' conceptions of undue pressure to participate; however, this compensation should not be confused with incentives in applying EDI to ethics.</p>
<b>Data Collection</b>	<p>Are you using culturally appropriate and/or accessible methods for collecting data (e.g., sharing circles, storytelling, art creation, etc.)?</p>
	<p>Are your data collection locations inclusive and accessible for all participants (e.g., gender-neutral washrooms, wheelchair access, etc.)?</p>
	<p>For those who have little to no speech, have you considered conducting research via participant observation? If you do conduct participant observation, are you mitigating intrusiveness?</p>
	<p>Are you collecting any demographic data that you will not be using as dimensions in your analysis? If so, rethink and remove questions about this data. You should never be collecting unnecessary data for both reasons of privacy and trust-building with your participants.</p>
	<p>Are you allowing participants to choose the language used to describe them (e.g., "fat" vs. "overweight," etc.)? Are you then using this same language to interact with them and report your findings?</p>
	<p>Are you imposing any hierarchies in your survey options? Here you will want to look at what order you are presenting options – if you want to avoid perceived hierarchies, you may want to list options alphabetically.</p>
	<p>If you are using a survey, are you always including an option for "prefer not to answer" and a space to write in an alternative response without labelling it as "other"? Using the term "other" can be seen as othering of equity-deserving groups who do not fit into the more dominant categories.</p>
	<p>If you are collecting demographic data as part of a survey, will you consider placing these questions at the end to lessen the impact of stereotype threats? Stereotype threat is the risk of confirming negative stereotypes about an individual's racial, ethnic, gender or cultural group, which puts psychological strain on an individual. Research has consistently suggested that people under stereotype threat may respond to items differently than they would if they were not under that threat. Having said this, you may need to place demographic questions at the beginning if you are using them as screening questions.</p>
	<p>If you are asking about sexual orientation, are you being specific about whether you are asking about identity, attraction, and/or behaviour? For more excellent and thorough advice on collecting and interpreting data related to gender</p>

	<p>and sex, read the UBC Centre for Gender and Sexual Health Equity's Gender and Sex in Methods &amp; Measurement - Research Equity Toolkit.</p>
	<p>Are you being sufficiently and meaningfully specific in disaggregating your data collection (e.g., Black vs. multiple sub-categories of Black identity, 3x3 method rather than gender/sex binaries, etc.)? To elaborate on the examples given, using multiple sub-categories for Black identity such as African, Caribbean, etc. can be a way of getting at the differences in experience within Black populations. The 3x3 method means that rather than classifying participants' gender modalities as either cis or trans, the 3x3 method offers allogender as a third modality. And, unlike most of the other options, it explicitly asks about binary and nonbinary options, including allobinary as a third binary relation. The 3x3 method allows for a more flexible categorization of participants without requiring that participants disclose their sex assignments at birth while at the same time making space for uncommon and perhaps unexpected combinations across the nine possible locations within the grid.</p>
	<p>Are you being sufficiently transparent and empowering about how certain responses will be analyzed/grouped for comparison? Might you provide two different response options with different purposes (purpose of stratification and purpose of accuracy)? For example, the Gender and Sex in Methods and Measurement Research Equity Toolkit suggests providing two ways of responding to the same question of What is your current gender identity? Option A is man, woman, nonbinary, and prefer not to say, while Option B is man, woman, nonbinary, agender, gender neutral, genderqueer, pangender, bigender, demigirl, demiboy, neutrois, genderfluid, genderflux, something else/prefer to self-describe, prefer not to say. In this example, Option A is used to ask for input on how participants would like to be grouped for a stated purpose like stratification or comparison. Option B would be used to allow participants to provide data that will help describe the sample and participants more accurately. In both cases, you would explain why you are asking these questions and how the responses will be used.</p>
	<p>Have you carefully considered the order of your questions in relation to different identity factors (e.g., asking a trans person about current gender identity before asking about sex assignment at birth)? The order of questions can be significant in ensuring you cause the least amount of trauma and stress to your participants.</p>
	<p>Are you providing a list of culturally appropriate and/or accessible resources/services to your participants should they need supports while participating in the study? Will you allow them the option of not taking the resources with them if they deem taking them a risk to their safety? Might it be more</p>

	appropriate to have in-person supports (e.g., Elders, peer counsellors, etc.) at the research site?
<b>Data Analysis and Interpretation</b>	If you will be using a validated scale, have you thought critically about whether it needs to be revised and revalidated for certain populations? As said earlier, this may mean you need to develop and validate a new scale or measure in collaboration with the community involved in the research.
	Will you be member checking your qualitative data (i.e., transcripts, quotations, etc.)? This kind of validation and confirmation is key to the self-determination of your research participants as well as building trust.
	Will your stakeholders and/or participants be engaged in analyzing and/or interpreting the data? Often equity-deserving stakeholders and participants are shut out of this stage of the research, which reimposes power imbalances and risks misinterpretation and misrepresentation of the findings.
	Will you use critical quantitative methodologies as appropriate for different equity-deserving groups (e.g., QuantCrit, queering/transing data, intersectional/disaggregated analysis, data feminism, etc.) and providing sufficient contextualization of data? While qualitative methods are most often associated with ensuring that social justice is applied to research interpretation, quantitative methods can also be interrogated in a similar manner.
	In stratified samples, if a participant has multiple identities, to which stratum will you assign them? Will the participant be invited to choose the stratum? How might you account for heterogeneity within one stratum? On what basis will you define sameness and difference? What assumptions are you making in defining this? In asking yourself these questions, you are trying to mitigate the risks of essentializing differences and perpetuating discriminatory stereotypes. You are also trying to ensure that your assumptions and classifications are transparent to your knowledge users and participants.
<b>Using Secondary Data</b>	Are there any limitations and/or biases built into these existing data? How will you mitigate or interpret these in a transparent way? Have you sufficiently explained the implications of these biases?
	If certain identity factors like race and/or ethnicity are missing, might you use relevant imputation methods? If you do so, will you be engaging the affected communities and end users to analyze this data?

### 2.5.2 EDI in Non-Human Animal Ethics

Though perhaps less obvious, EDI is also important in the case of non-human animals in research. For example, philosopher of biology and bioethics Monika Piotrowska has pointed out the need for diversity and inclusion across factors such as sex, age, environmental conditions,

and genetic strain, for rodents used in preclinical studies to improve translation of findings and avoid unnecessary suffering of these non-human animals.

Indigenous worldviews and epistemologies have particular implications for EDI in non-human animal ethics, which will be outlined in the next subsection on Indigenous research ethics.

### 2.5.3 Indigenous Research Ethics

While the questions provided in Section 2.5.1 can be applied to Indigenous Peoples as research participants, there are some very specific and distinct aspects of Indigenous research ethics that should be highlighted. It is not just a matter of adapting or tweaking Western colonial research structures and methods to fit Indigenous contexts, but honouring Indigenous ways of knowing and doing as equal and parallel to Western epistemologies and methods.

Some of the main areas in which researchers need to be aware about differences in ethical engagement and research in an Indigenous context are:

- The **4 R's (respect, reciprocity, relevance, responsibility)** as conceptualized by Verna Kirkness and Ray Barnhardt in 1991 are hugely important in conducting research with Indigenous Peoples. These values emphasize that the research should be relevant to the community, and rather than being extractive and one-sided, it should also be a reciprocal process. Respect and responsibility extend to not only the human participants in the research, but other relations such as more-than-human animals and the land itself. In later work by Ranalda L. Tsosie and her colleagues, two more R's have been added: **relationship and representation**. As they write, "Relationship is grounded in complex layers of Indigenous identity and relationship with land, nature, ancestors, community, and future generations. It is founded on kinship and accountability, built on mutual honesty and trust, and shapes Indigenous realities. . . . When conducting research, the researcher must be honest and clearly identify the purpose and motivation behind the research. Researchers are responsible and accountable to all relationships." In adding representation, Tsosie and her coauthors attend to "having presence at the table and acting or speaking on behalf of another person or an entire group" and specifically noting the need for "conducting and representing research from a strengths-based or asset-based approach, rather than from a deficit- and damage-based angle, better reflects our Indigenous communities."
- To elaborate on the importance of **strengths-based approaches** to Indigenous research or "wisdom seeking," I would like to refer to an article by Josie C. Auger, Nisha Nath, and Carolyn Greene on the conflict between decolonial practices and the colonial REB process. They write that though the Indigenous researcher "is centring self-determination in her research, . . . the REB is centring harm" (19).
- Another useful way to think about Indigenous research ethics is as "**good relations,**" and by extension research done in a good way, which is eloquently elaborated on in Michif scientist Max Liboiron's book *Pollution is Colonialism*. In their book Liboiron also clearly explains the difference between anti-colonial and decolonial research (Liboiron, 2021) with the former being a more accurate term. Colonial ways of doing research and seeking knowledge is through assumed access, use, and ownership to Land and data

(Liboiron, 2021) while anti-colonial research practice is about pushing back against these extractive and transactional assumptions.

- Practicing good relations also means **meaningful engagement and collaboration throughout the research cycle**, including any advisory circle or body. For Indigenous research, but also for any equity-deserving group, it is imperative that the researcher meaningfully engages and co-designs their research project with the community. This could look like an advisory circle or body, but this kind of governance structure should be set up with authentic relationships in mind and not just as ticking a check box. There have been cases of non-Indigenous researchers assuming that they must set up such an advisory body even if the community does not want it and including members on it that do not have a relevant relationship to the research being conducted but are just filling an “Indigenous” role.
- **Communal/collective consent** rather than individual consent (Brunger et al., 2020; Tauri, 2018) and community peer review (Liboiron, Zahara, & Schoot, 2018) – In some communities, especially Indigenous ones, collective consent given verbally or through the process of relationship-building is more respectful and appropriate than the REB-sanctioned written consent for each individual. In these contexts risk and benefit must be viewed through the collective rather than autonomous individuals, and consent should be an ongoing process that can change. As Indigenous criminologist Juan M. Tauri notes in his article about the challenges he faced in getting university ethics approval for his doctoral research, “All too often, REBs privilege the ‘liberal,’ Eurocentric conceptualization of the autonomous research subject as the focus of their deliberation on ‘right research,’ which leads to an overreliance on formulaic ethics processes” (11). Another example of this difference between understandings of consent is when an Indigenous researcher applied for research ethics to conduct research with a group of beaders to which they belonged. The REB required the researcher to ask for written consent in order to approve their ethics application. This request was seen as highly inappropriate and actually harmed the researcher’s relationships with these collaborators.
- In addition to communal consent, a researcher may want to consider **community peer review** as posited by Liboiron and their colleagues, in which the affected communities are given the “ability to determine whether the research may cause them harm and be part of the determining how knowledge should best circulate to reduce or eliminate that harm.” Within such a process, the researcher must hire a community member to the team, research the social, cultural, and economic contexts of the community, identify the community, ensure skills for community conversation are in place, call and conduct the community meeting, and analyze the feedback for consent and refusal.
- **Ceremony as ethics review** (Auger et al., 2023; Makokis et al., 2020) – For many Indigenous communities, ceremony is a research method and can also act as a community’s ethics review. The researcher should take the lead of the community in such a situation and build the necessary relationships and trust to facilitate such a culturally appropriate process.
- **Positionality; specificity and context over universalism; distinctions-based frameworks** - These three concepts are connected. Positionality is foundational for

Indigenous Peoples' understanding of relationality, and context, or connection a particular Land and people, are essential in interpreting research. This also means that distinctions-based frameworks should be used to ensure that you are not applying a pan-Indigenous lens or ethical protocol onto distinct communities and peoples. To guard against this, researchers should always ask the community what their specific protocols are.

- Related to ensuring your research is rooted in specific lands and communities, is the existence of **community-based ethics processes and protocols** (Hayward, et al., 2021). As surveyed in Ashley Hayward et al's article on Indigenous ethics boards and processes outside of the university, these are self-determined protocols that are imperative for ethical and anti-colonial engagement with Indigenous Peoples.
- **Honoraria and gifts** (Auger et al., 2023) are another area in which Indigenous research ethics often conflict with Western colonial ethics reviews and systems. Honoraria and gifts should not be viewed as incentives or compensation in this context. They are a form of honouring the experience and knowledge of the community, as well as the good relationship between the researcher and the Elder or Knowledge Keeper receiving the honorarium or gift. According to Auger and her coauthors, it is also not to be seen as a one-time transaction isolated in time, but as transcending of a "single event or point in time" and as such, an "intrinsic part of personal and collective relationships, grounded in reciprocity and accountability to one another" (16).
- **Refusal** (Simpson, 2007; Tuck & Yang, 2014) is both a right and a qualitative method for Indigenous and other minoritized communities. Sometimes this refusal is explicit as in a community saying no to a researcher's project, but it can also be more subtle as when community members don't show up to meetings or gatherings or when community members shut down during interviews and/or speaking in a coded language as they did in Kahnawà:ke anthropologist Audra Simpson's work within her own community (2007); in this example, she says that interviewees began saying things like "nobody seems to know," which needed to be read as the limit on what knowledge was to be communicated and potentially claimed by academia.
- Indigenous ethics also extend beyond the processes associated with specific projects and inflect all research practices, including **reading and citing research**. Eve Tuck characterizes colonial ways of reading for research as reading "extractively" (Tuck, 2017), which continues to claim and take knowledge from Indigenous scholars and knowledge holders in an unethical manner. This colonial attitude is also embedded in citational practice, in which Liboiron intervenes by marking the positionality of all cited sources even, and especially, when they are "unmarked" to demonstrate the importance of place and connection to Land (Liboiron, 2021).
- The importance of **non-human animal or more-than-human personhood** (Liboiron, 2021; Robinson, 2014; Yandaarra et al., 2022), which can affect animal research ethics: Again, Max Liboiron's lab attends to non-human animal relations by refusing to dispose of the fish guts they analyze as biohazardous waste, which is the mandated university process, and instead returning them to the ocean with Indigenous ceremony. Research from Australia has also discussed the ways in which the Land itself may or may not consent.

For more guidance on Indigenous research ethics, you can visit The University of Winnipeg Human Ethics Resources: <https://www.uwinnipeg.ca/research/ethics/ethics-resources.html>.

#### 2.5.4 Challenges for EDI in Research Ethics

As you may have already noticed throughout the various questions to be asked when incorporating EDI into research ethics, there are a number of challenges. These include:

- **Balancing self-determination and diversity of representation with confidentiality** (Auger et al., 2023; Dame, 2022; Lowik et al., 2022; Roffee & Waling, 2017) – By protecting confidentiality of participants, you may be erasing them from the research and contributing further to their underrepresentation, as well as appropriating the epistemic contribution of the participants. At the same time, you do not want to harm those who are already in a potentially precarious position.
- **Balancing access with respect, sovereignty, and collective ownership** (Wick et al., 2024) – this challenge speaks to the provision of access to research data and findings to those who are affected by them, but also ensuring you do not open up data and research that should be governed and controlled by the community from which it came.
- **Trust, relationship-building, and ethics of care in conflict with anonymity/confidentiality** (Msoroka & Amundsen, 2017; Roffee & Waling, 2017) – Here there are issues of imposing universal ethics standards on diverse situations. For example, some participants may see it as ethical to share their personal responses with the collective or others in the study rather than abide by regulations on anonymity and confidentiality. This process may be connected to crucial relationship building and transcend the individualistic framework for ethics imposed by REBs. There may also be instances when it would be more ethical from a care standpoint to reveal that others in the study have been experiencing and revealing the same traumas to ensure the participant does not feel as isolated and distressed.
- **Data generated by open-ended questions cannot easily be grouped for statistical analysis** (UBC CTLT, *Asking*, nd) – Though open-ended questions are arguably more effective for getting at the nuances and agency of participants, it can then lead to difficulties in analysis.
- **Threat of hate speech and violence** when recruiting widely through different channels, especially social media (Littler & Joy, 2021) – Though it could be more accessible and equitable to reach out to recruit via social media, this could lead to responses of hate speech and violence, as it did in Litter and Joy's work with LGBTQ+ recruitment.
- **Negotiating different forms of ethics review and protocols that can conflict with each other** – “There is a troubling irony in requiring that Indigenous researchers, engaged in decolonial work, secure approval from a colonial institution” (Auger et al., 2023, 19). Here there may be community-based ethics processes that must be adhered to alongside those from the university, but should also arguably take precedence over those from the university.
- **Tensions between doing EDI-based ethically sound research and overburdening the communities being researched** (Brunger & Russell, 2015) – Here meaningful

engagement and collaboration, and the time, care, and energy involved, could end up burning out and harming the community.

- **What to do when the community refuses** (Liboiron, 2021; Tuck & Yang, 2014) – the short answer to this challenge is that you stop and do not begin or continue the research. This can be a disappointing and frustrating answer for researchers, especially those who are trained in Western, colonial methods, but it is the ethical response. As Eve Tuck and K. Wayne Yang write in their article on pedagogies of refusal in qualitative research, “analytic practices of refusal provide ways to negotiate how we as social science researchers can learn from experiences of dispossessed peoples—often painful, but also wise, full of desire and dissent—without serving up pain stories on a silver platter for the settler colonial academy, which hungers so ravenously for them. . . . Refusal can comprise a resistance to making someone or something the subject of research; it is a form of objectless analysis, an analytic practice with nothing and no one to code” (812).
- **Confusing institutional liability with risk of actual harm**; colonial control over Indigenous Wisdom Seeking (Auger et al., 2023) – This standpoint of university research ethics boards is one of the largest challenges facing the incorporation of EDI into ethics. **Much of the literature**
- **Terminology and language for identity is fluid and can change over time** – It is important to keep up to date on these changes and to consult meaningfully with the stakeholders and communities involved in the research to verify that you’re using the most appropriate terminology.

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### Considerations for Research Ethics Boards

The following list includes EDI considerations for Research Ethics Boards since both researchers and REBs need to understand and apply EDI principles to the ethics process in order to facilitate good research.

- Inclusion of diverse people on the board without tokenism and with fair compensation and/or recognition
- Inclusion of people with lived experience in the review when the research may impact equity-deserving populations to which they belong – this could mean forming ad hoc committees or inviting guests to review when needed.
- Being aware and proactive about ensuring EDI is being incorporated throughout the ethics application and review process, including transparent instructions regarding EDI expectations
- Respect for community-based ethics protocols and parallel, autonomous processes, as well as the longer times these ethical and research processes may take
- EDI training specific to research ethics, including cultural humility training

### 2.6 EDI in Research Data Management

Data management in your research project involves recognizing power differentials and cultural norms, inside and outside of academia, and among diverse research partners.  
- Leela Viswanathan

Research data management “refers to the processes applied through a research project’s lifecycle that guide the collection, documentation, storage, sharing and preservation of research data” (Government of Canada, 2022). This management means planning for the types of data you will be collecting (e.g., digital files like .doc, .jpg, .mp4, .xml, or physical data like blood samples, pieces of art, archeological artifacts, etc.), how you will classify and organize your data, who will have access to it, and how it will be stored and preserved in the short and long term (see **Figure 4** for a diagram of the research data management lifecycle).

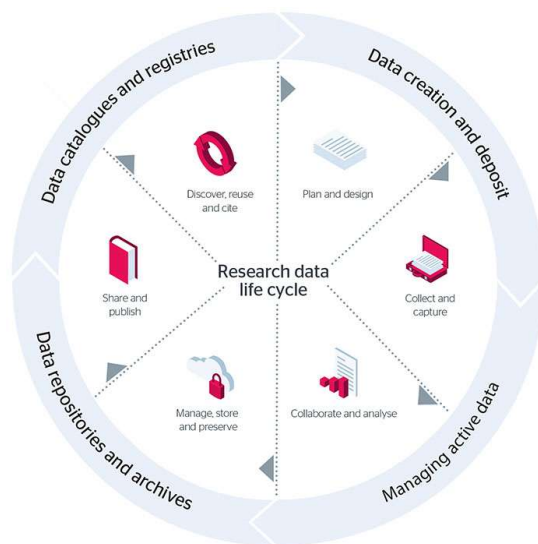


Figure 4: Research Data Life Cycle

For more general information on research data management, visit [The University of Winnipeg Research Data Management website](#).

#### Why is EDI Necessary in Research Data Management?

- More ethical and accountable research:
- More accessible research:
- Increased research impact:

Equity:

Diversity:

Inclusion:

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### Findable, Accessible, Interoperable, and Reusable (FAIR) Principles

In 2016, representatives from universities, industry, funding agencies, and academic publishing groups worldwide released the [FAIR Data Principles](#) to provide guidance on how to set up data systems that are “open” for reuse. According to these principles, data should be as accessible and usable as possible to advance science and knowledge and foster innovation worldwide.

The acronym FAIR refers to data re-use standards that are “Findable, Accessible, Interoperable, and Reusable”:

- For data to be Findable, data will be tagged with labels so that they can be read by machines to allow for open and automated data analysis.
- To be Accessible, data systems will be setup for rapid and free data retrieval.
- To be Interoperable, data will be put into formats that allow for easy integration with data from other sources (to allow for pooled data analysis, for example).
- To be Reusable, data will be linked to detailed background descriptions to enable their analysis for any purpose.

Many research funding agencies and research publishers have or plan to require that data are “FAIR” in order for projects to be funded or for findings to be published. Given that using the FAIR principles alone would undermine Indigenous sovereignty and self-determination, the CARE Principles for Indigenous Data Governance (Collective benefit, the Authority to control the data Responsibly and Ethically), were published by the Research Data Alliance International Indigenous Data Sovereignty Interest Group (see p. 37 in this manual for more information on CARE Principles).

### Engagement, Governance, Access, and Protection (EGAP): A Data Governance Framework for Health Data Collected from Black Communities in Ontario

The EGAP Framework for governing the health data of Black communities in Ontario was

Step in Research Data Lifecycle	EDI Considerations
Data Collection/Creation	What role will the community have in the collection/creation process? How will community norms and spiritual practices be navigated and supported through the data collection process?
Documentation and Metadata	What documentation will be needed for your data to be understood in the future? Are you using norms and standards to document and describe your data to contribute to universal access?
Data Analysis and Interpretation	Will the interpretation of results be collaborative in nature? Will data analysis and interpretation involve community members? Describe how a strengths-based framework will be used to conduct, analyze, and interpret this research.
Data Storage and Security	How do research partners and other team members contribute to, access, and modify data for the project?

	Where are the data stored? How are you addressing issues regarding community-university partnerships associated with data storage location, access, and longevity beyond project completion? If the communities you're working with do not yet have the resources or capacity to steward their own data, will you be drafting a research data sharing/rematriation agreement (see <b>Appendix 3</b> for examples of Indigenous data sharing/rematriation agreements)?
<b>Responsibilities and Resources</b>	Who is responsible for managing the data? What is an equitable approach to sharing management responsibilities? Which equity-informed data management frameworks will you be using (e.g., FAIR Principles, OCAP® Principles, EGAP, etc.)? Are they appropriate for the distinct groups you're working with? <sup>5</sup>
<b>Return and Dissemination of Results/Sharing and Reuse of Data</b>	How will the community be involved in the review and approval of research data intended for dissemination to the broader public? How will results be returned to participants/the community?
<b>Data Withdrawal and Disposal</b>	Will participants/the community have the ability to withdraw their data/samples from the research within a timeframe to protect individual autonomy against social pressures to participate?
<b>Ethical and Legal Compliance</b>	Review your legal and ethical responsibilities as they relate to Intellectual Property. Does your project use or collect sensitive data? If so, how is it collected? What ethical and legal protocols are in place regarding the process of gathering, analyzing, storing, and accessing the information?

## 2.6.2 Indigenous Data Management

Research data management undoubtedly has a colonial past. Historically, data collected about Indigenous communities has been done through a lens of inherent deficit, with a focus on disadvantage, negative stereotyping, and reinforcing systemic oppression (FNIGC, 2017). These practices have not often benefited or respected Indigenous rights or interests and have taken the management and stewardship of research data out of communities. Furthermore, the colonial state continues to impose laws and legislation on personal data collection. To help ensure research does not continue in this manner, there is a lot of work underway in repairing that historical damage and rebuilding trust between Indigenous communities and Western institutions.

It is critical for settler collectors and interpreters of Indigenous data to understand and respect the treaties signed 400 years ago by the original settlers in Canada. In these treaties, like the Two Row Wampum covenant signed with the Haudenosaunee Confederacy, it was agreed that settlers and their knowledge systems, languages, and governance structures would travel in

<sup>5</sup> See the next section on Indigenous Data Management for more information about different Indigenous data frameworks and principles.

one row and Indigenous knowledge systems and governance in another row, running parallel but without interfering with one another. Respecting this principle of non-interference requires data holders to honour Indigenous collective consent and rights so as not to interfere with Indigenous sovereignty, self-determination, or rights. In practice, Western knowledge systems in Canada do not meet the obligations set out in these original treaties. Data holders, organizers, and interpreters must think critically about what it means to honour Indigenous knowledges and governance and not interfere with Indigenous Nations' sovereignty and rights.

### **Indigenous Principles and Frameworks for Research Data Management**

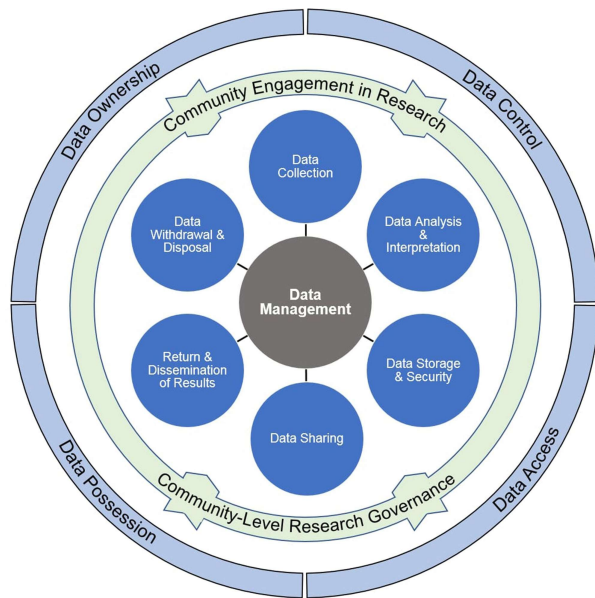
#### ***United Nations Declaration on the Rights of Indigenous People (UNDRIP)***

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) was adopted in 2007 by the UN General Assembly and is the product of over twenty-five years of international Indigenous diplomatic relations work. UNDRIP reinforces Indigenous Peoples' rights and interests over data about their Nations lands and resources (Carroll et al., 2021, p. 108). As part of reinforcing Indigenous sovereignty and rights, UNDRIP specifically invokes the agreement of non-interference as outlined in the original treaties with Indigenous Peoples signed by Canada. The articulation of Indigenous rights in UNDRIP provides clear guidance on decisions related to research data management. For example, the right to self-determination (Article 3); the right to autonomy and self-government (Article 4); the right to maintain distinct institutions (Article 5); the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge and traditional cultural expressions (Article 31); and the right to determine their own identity or membership (Article 33) all require there to be Indigenous governance over all sources of Indigenous data. Rather than requiring member states to report on Indigenous outcomes, the Declaration calls on states to allow Indigenous populations access to rights in governance and to an informed decision-making process. In particular, Article 19 addresses the right for Indigenous people to have access to data and the right for them to obtain "free, prior, and informed consent before adopting and implementing legislative or administrative measure that may affect them" (United Nations, 2007). UNDRIP makes it clear that Indigenous rights must be maintained in the way that research data management practices are developed across all Canadian institutions.

Historically, research and data collection were done without Indigenous consent or any type of consultation. UNDRIP instead calls for the establishment of a process where anytime you want to engage in data collection as it pertains to Indigenous Nations, you must go through an informed consent process. UNDRIP also states that Indigenous peoples always have the right to implement their governance over those processes.

#### ***Ownership, Control, Access and Possession (OCAP®)***

Indigenous data sovereignty is achieved when Indigenous communities have control, ownership, access, possession and decision-making power over their data. In respect of Indigenous Nations sovereignty and self-determination, the interpretation of the OCAP® principles by First Nations is distinctions-based, meaning that First Nations, as well as their organizations and communities, can interpret and apply these principles according to their governance and ethical frameworks. OCAP®, which is often applied to all Indigenous research, was developed specifically for First Nations populations, so if you are working with Métis or Inuit populations, you will want to look at OCAS or Principles of Ethical Métis Research by the National Aboriginal Health Organization and the National Inuit Strategy on Research below.



### ***Ownership, Control, Access, and Stewardship (OCAS) and Principles of Ethical Métis Research***

According to the National Aboriginal Health Organization, the six main principles of ethical Métis research are:

1. Reciprocal Relationships: Building relationships between researchers and the community while sharing responsibility and benefits and learning from each other.
2. “Respect For”: Respect is for both the individual and the collective.
3. Safe and Inclusive Environments: Research should be safe for all (e.g., Elders, youth, all genders and sexual identities, etc.).
4. Diversity: The diversity of the Métis must be recognized by researchers and taken into account as appropriate. Researchers must recognize that there are a wide variety of concepts of what research is among Métis and that different types of research are more appropriate for various situations.
5. “Research Should”: Research should be relevant to and benefit all those involved, protect Métis cultural knowledge, and be responsible and accountable. Researchers should acknowledge contributions of participants and community partners.
6. Métis Context: Researchers will need to understand relevant history before undertaking Métis research. Knowing history is necessary for understanding Métis values and Métis knowledge. Understanding Métis values and knowledge are important for ensuring that a Métis context is taken into account during research processes and design. In order to ensure Métis context and methodologies, it is also important to involve Métis experts. One important concept that researchers need to understand when doing research in a Métis context is that Métis may straddle worldviews (i.e., Western and First Nation).

### ***National Inuit Strategy on Research***

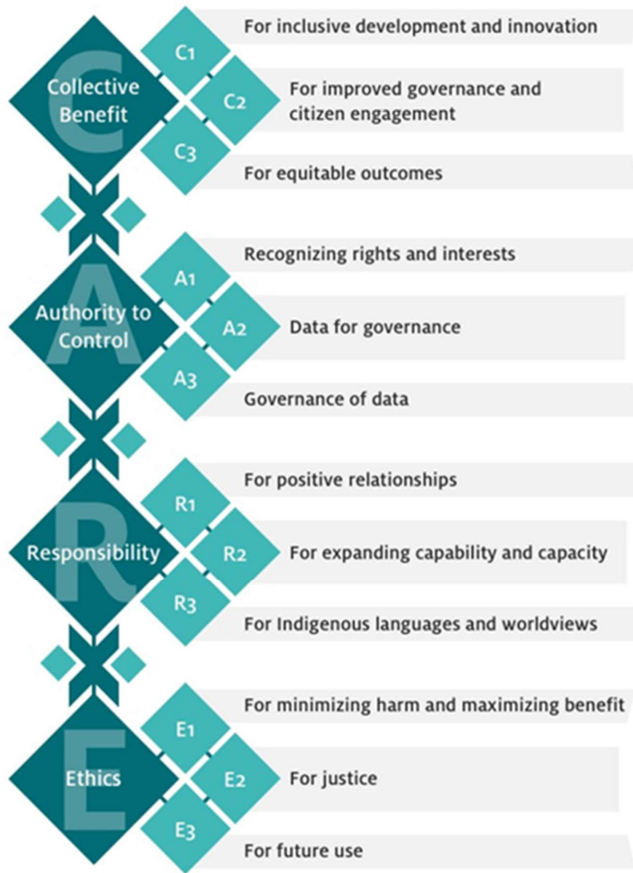
In 2018, Inuit Tapiriit Kanatami published their *National Inuit Strategy on Research*, to outline five priority areas: “1) Advance Inuit governance in research; 2) Enhance the ethical conduct of research; 3) Align funding with Inuit research priorities; 4) Ensure Inuit access, ownership, and control over data and information; and 5) Build capacity in Inuit Nunangat research” (ITK, 4).

When conducting research with Inuit,

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### ***Collective Benefit, Authority to Control, Responsibility, Ethics (CARE) Principles***

In response to the development of the Findable, Accessible, Interoperable and Reusable (FAIR) Principles (Wilkinson et al., 2016), the Global Indigenous Data Alliance created a new global set of data management principles: Collective benefit, Authority to control, Responsibility and Ethics (CARE) (see **Figure 5**). The CARE principles mandate that non-Indigenous data holders not only adhere to Indigenous governance frameworks but also establish “values-based relationships” with Indigenous communities to advance Indigenous sovereignty and self-determination in research and other use of data (Carroll et al 2019). These principles do not undermine the principles of OCAP® as they prioritize the data governance principles of the First Nations that data have been or will be collected from.



***Self-Determination, Exercise Sovereignty, Ethical Protocols, Data Stewardship and Governance, and Support Reconciliation (SEEDS) Principles***

The SEEDS Principles were created from the common themes that emerged during the 2018 International Population Data Linkage Network Conference with Indigenous attendees from Canada, New Zealand, and the United States. These principles are meant to be a living and expanding set of guiding principles for Indigenous population health data linkage that: “1) prioritizes Indigenous Peoples’ right to Self-determination; 2) makes space for Indigenous Peoples to Exercise sovereignty; 3) adheres to Ethical protocols; 4) acknowledges and respects Data stewardship and governance, and; 5) works to Support reconciliation between Indigenous nations and settler states” (Rowe et al., 2021, p. 2).

### ***Traditional Knowledge and Bio-Cultural Labels***

The Traditional Knowledge (TK) and Bio-Cultural (BC) Labels are a metadata initiative for use by Indigenous communities and local organizations. These descriptive tools were developed through sustained partnership and testing within Indigenous communities across multiple countries. The TK and BC Labels allow communities to express local and specific conditions for data sharing and engaging in future research and relationships in ways that are consistent with existing community rules, governance, and protocols for using, sharing, and circulating knowledge and data. The Labels act in place of a Creative Commons license when working with community collections.

The TK Label text is intended to be customized by each community to support the inclusion of local protocols for access and use to cultural heritage that is digitally circulating outside community contexts. The TK Labels identify and clarify community-specific rules and responsibilities regarding access and future use of traditional knowledge, including sacred and/or ceremonial material, material that has gender restrictions, materials that has seasonal conditions of use, and/or materials specifically designed for outreach purposes.

### **Case Studies**

#### **Xwi7xwa Library**

The Xwi7xwa library at University of British Columbia (UBC) is known to be the only Indigenous academic library in Canada. The library is strongly connected to the First Nation House of Learning, or Longhouse, beside it. The library keeps in mind the four R's of the Longhouses: respect, relationships, responsibility, and reverence. to determine how to classify information in a way that makes sense for their communities. With these teachings in mind, the Xwi7xwa library uses a British Columbia variant of the Brian Deer classification system.

The Brian Deer classification system was developed by Kahnawake Library and Brian Deer in the 1970s for the National Indian Brotherhood, which is now the Assembly of First Nations. When the Xwi7xwa library opened in 1993, the first librarian, Jean Joseph, an Indigenous librarian, developed the Xwi7xwa library's classification system based off the Brian Deer classification system. Using this classification system means that the way that you find items on the shelves looks very different than in other branches at UBC and other university libraries. Items are classified based on their relationships to one another. For example, sections on community and community resources will have items relating to communities that have a relationship to one another, whether geographic or through kin connections, nearby each other on the shelves..

Additionally, using a modified Brian Deer classification system allows for the use of community-specific subject headings, using language that makes sense to the communities that the library serves. This system allows the library to be responsible and accountable to the communities that they work with. . As Xwi7xwa is a smaller library branch, it may be easier for it to implement these changes than it is for larger branches, libraries, and archives across Canada.

#### **The Inuvialuit Digital Library**

The Inuvialuit Digital Library (<https://inuvialuitdigitallibrary.ca/>) is a four-year collaborative research project with the University of Alberta and the Inuvialuit settlement region to support preservation and access to cultural resources. The project was community-focused and

community-driven, and Elders and community members worked closely with the researchers to develop the digital library. Additionally, the library incorporated culturally appropriate metadata and description frameworks.

The Inuvialuit community meetings generated the following metadata principles:

1. Metadata should enable searching, browsing, and exploration of the collections;
2. Adoption of a core set of metadata elements that are useful, understandable, and sustainable is necessary;
3. Users should be able to contribute metadata and tags (and content) with review and approval by ICRC staff;
4. Access, rights, and reuse conditions should be clearly articulated in the metadata; and
5. Metadata must enable a system that is usable by community members of different ages, differing comfort levels with technology, and differing comfort levels in the various languages and dialects. Metadata practices have to be inclusive of the community in a way that makes sense for the community.

The community found the following metadata characteristics desirable:

1. Indication of resource type (e.g., text, audio, image, video) to enable search and browse;
2. Indication of language(s) and dialect(s) of resources;
3. Indication of topic(s) of resource, including names of people and places (map-based and location-based filtering of content);
4. Inclusion of variant forms of names for people and places, including traditional and institutional forms and variant spellings, in local languages and dialects as well as English;
5. Inclusion of individuals or organizations involved in the creation of resources and their roles;
6. Indication of audience for resources;
7. Clear indication of access and reuse conditions for resources; and
8. Ability for community members to add metadata in the form of keywords, tags, or stories.

#### **Further Resources on Indigenous Data Management**

For more information about Indigenous data management, watch [The University of Winnipeg Indigenous Data Management: Indigenous Sovereignty in Action webinar series](#).

#### 2.7 EDI in Knowledge Mobilization and Translation

*Knowledge mobilization* is “an umbrella term encompassing a wide range of activities relating to the production and use of research results, including knowledge synthesis, dissemination,

transfer, exchange, and co-creation or co-production by researchers and knowledge users” (SSHRC, 2023).

*Knowledge translation*, while related to knowledge mobilization, is also distinct from it. Knowledge translation is “a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system” (CIHR, 2016).

EDI is important in designing your knowledge mobilization and translation plans because

You can include EDI in your knowledge mobilization/translation plans by ensuring that you produce accessible outputs/events for impact on end users and beyond academia. Some examples of EDI-friendly outputs are:

- infographics
- museum/gallery/travelling exhibitions
- plain language reports
- podcasts
- presentations to community or practitioners
- training resources
- videos
- websites

When developing your knowledge mobilization/translation products, you should be keeping in mind:

- Who are the potential audiences for your research?
- Who will be using the research?
- Who will be impacted by your research (directly or indirectly, positively or negatively, etc.)?

You can also make sure all of your publications are open access. This access enables researchers from institutions and geographies that may not be able to afford the high cost of journal subscriptions.

#### 2.7.1 Inclusive and Accessible Outputs

When considering EDI for your knowledge mobilization/translation outputs, you can ask yourself the following questions:

- If you are developing online content for your knowledge mobilization/translation, are you ensuring that it complies with the [Web Content Accessibility Guidelines \(WCAG\) international standard](#)?
- If you are developing videos, have you ensured that there are closed captions and/or available transcripts?
- Are you publishing and sharing your findings in accessible formats appropriate to the audiences who are or may be impacted? Do your knowledge users require your outputs to be translated into languages other than English?
- Are your stakeholders and/or research participants co-authors/co-presenters for the research?

- Will you be disseminating research findings to your stakeholders in a timely manner throughout the project?

### 2.7.2 Inclusive and Accessible Events

Some of your knowledge mobilization and translation activities could be events, including community presentations, conferences, and workshops. To ensure you apply EDI to your events, you can consider the following:

1. Include a meaningful land acknowledgement at both online and in-person events.
2. Provide a list of childcare options for events, rather than requiring attendees to research these options themselves.
3. If organizing events online, adopt practices that promote accessibility. For example, use clear and uncluttered slides and run an Accessibility Checker in PowerPoint; enable live captioning during presentations and/or provide transcripts; and identify a contact who can address accessibility requests in a remote platform.
4. For a detailed checklist of accessibility and inclusion considerations, see the [UWinnipeg Accessibility and Inclusion Checklist for Events](#).
5. Consult the Planning Guide for Accessible Conferences (<https://www.accessiblecampus.ca/wp-content/uploads/2016/12/A-Planning-Guide-for-Accessible-Conferences-1.pdf>) provided by the Council of Ontario Universities.
6. Apply the York University Inclusion Lens Event Management Tool (<https://inclusionlens.yorku.ca/>).
7. Take the Accessible & Inclusive Event Planning for Knowledge Mobilization training provided by Research Impact Canada (<https://rise.articulate.com/share/ngZ-WN24w36cnJ84l3dpGJ1DN-0fCV23#/>).

### 2.7.3 Indigenous Knowledge Mobilization and Translation

When mobilizing and translating findings from Indigenous research

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## Chapter 3: EDI in Research Practice

### 3.1 Introduction to EDI in Research Practice

Unlike EDI in research design, EDI in research practice is less about your research project and more about your day-to-day research environment, including how you select and interact with your research team and trainees. Here you need to ask, “How will you incorporate principles of equity, diversity, and inclusion into the research environment and everyday operation of your project?”

EDI in research practice should be considered in the following areas:

- **Team composition and recruitment** – how will you ensure your research team is diverse? What kinds of practices will you use to ensure that all have an equitable chance of recruitment and research opportunities within the team?
- **Training/mentorship plan** – how will you guarantee that you are recruiting and hiring your trainees equitably? What will you do to make sure training and mentorship opportunities are equitably distributed among trainees? Will you be providing any training on EDI in research to your trainees?
- **Research environment** – how will you ensure your research environment, including labs, centres, and equipment, is inclusive and accessible to all? How will you encourage a sense of belonging and safety for all team members?
- **Financial implications of EDI in research practice** – will you require funding to ensure all research team members are included and receive equitable opportunities? Have you allocated funding for the time contributed by community partners on advisory or working groups? Will you require any funding for honoraria and reimbursements for Indigenous Elders or Knowledge Keepers?
- **Governance for partnered research** – if you have research partner organizations, how will you ensure that the project is governed equitably among the various stakeholders? Is decision-making power shared? How are conflicts resolved?
- **Research assessment and adjudication** – how will you assess and evaluate peers and trainees’ research with an equitable and inclusive lens? Are you aware of potential biases in writing reference letters for different people?

### 3.2 EDI in Team Composition and Research Support Hiring

Depending on the needs of your research, you may be working with a small or large team. A research team is most often comprised of:

- Faculty (early, mid-, late career)
- Staff (coordinators/project managers, technicians)
- Trainees (undergraduate RAs, graduate RAs, postdoctoral fellows)

Why is EDI important in research team composition and research support hiring?

#### Systemic Barriers

Organizational barriers (e.g., hiring practices, evaluation practices, expectations/scheduling)

Informational or communicational barriers (e.g., language, accessibility of information)

Attitudinal barriers (e.g., unconscious bias -gender bias, cultural bias, race/ethnicity bias, age bias, language and institutional bias)

Technological barriers (e.g., access to internet, equipment)

Physical or Architectural barriers (e.g., accessible venues)

Lack of access to information, especially "insider" information

Lack of accessible materials (language, different neurodivergent abilities)

Lack of opportunities (e.g., publishing, presenting, networking, professional development, sponsors)

Lack of acknowledgement (credit for ideas and work; reference letters)

Lack of transparency or lack of processes in decision-making and conflict resolutions

Lack of access to appropriate mentors

Scheduling/hours

Equipment type/size of equipment

Equipment and venue access

Training on equipment

Disrespectful team environments

Lack of awareness of diverse needs

Lack of consideration for career interruptions

Mental/physical health

Poverty

Group gathering/social events with barriers to inclusion (e.g., dietary needs, accessibility, scheduling, etc.)

Lack of required skills due to upstream EDI issues

Step in Research Team Composition	EDI Considerations
<b>Self-Reflection and Identification of Barriers</b>	Are you committed to developing your knowledge of EDI? Examples include taking training in EDI, anti-racism, biases, etc.; reading published research on this topic and the work of individuals from underrepresented or disadvantaged groups; considering UWinnipeg's endorsement of the Dimensions Charter and how you might apply these principles; and speaking to the leaders at your institution about their commitment to EDI and what they are doing to address systemic barriers in recruitment.
	Have you learned about the current state of diversity in your discipline(s), department, and institution, and the departments and institutions of your co-applicants who will be potential mentors/supervisors? Have you reflected on your own unconscious and conscious biases? Carefully consider what role you can play to help identify and mitigate potential barriers within your research, partnership and institution, and ask your institution what its current employment equity targets and gaps are.
	Have you taken the UWinnipeg EDI in Research Certificate? If so, what can you apply from this training?
	Are you committed to taking workshops provided by the UWinnipeg Human Rights and Diversity Office like Duty to Accommodate Students, Sexual Violence Prevention, How to Use the Respectful Working and Learning Environment Policy, and Unconscious Bias Training, and the UWinnipeg Indigenous Insights program?
	<b>Recruitment</b>
Are you featuring an explicit statement encouraging those from equity-deserving groups to apply?	
Are you using inclusive, gender-neutral language in job postings?	
Are you providing information about UWinnipeg accommodations for persons who experience disability? Include a statement of commitment to an accessible recruitment process and provide the opportunity for applicants to request accommodations on a confidential basis. This commitment to accessibility may also be signaled by offering flexible locations and a willingness to share interview questions in advance.	
Have you included a statement acknowledging that researchers and trainees have varying career/academic paths and provided applicants the opportunity to explain interruptions in their application materials? Have you stated clearly that such interruptions will be given fair consideration in the selection process?	
Are you avoiding superlative descriptors (e.g., excellent, outstanding) in position postings?	

	Are you ensuring that you are only including the most necessary skills for the position in the posting and not a “wish list” of all of the skills you would like a candidate to have?
	How is the team’s commitment to EDI communicated to potential applicants? Is there a thoughtful equity statement included in all communications about the opportunities with the team?
	Are you advertising postings through networks and partners that focus on or have access to equity-deserving groups in your field?
	Are you advertising postings through internal networks/centres that serve equity-deserving groups (e.g., Aboriginal Student Services, International, Immigrant and Refugee Student Services, etc.)?
	Are you engaging in proactive recruitment, using diverse professional networks to actively seek out a broad pool of potential team members? For example, ask colleagues to identify strong prospective candidates and to encourage these candidates to apply. Ask specifically for recommendations of diverse applicants.
	Are you keeping postings active for sufficient time to ensure that they are seen by a wide group of potential candidates? Post all opportunities for an agreed-upon minimum number of days.
	Are you considering recruiting students from equity-deserving groups who are in targeted mentorship programs (e.g. Indigenous Summer Scholars Program, Pathways to Graduate Studies)?
	Are you considering recruiting promising students from equity-deserving groups from your classrooms?
	Have you used tools such as Gender Decoder ( <a href="http://gender-decoder.katmatfield.com/">http://gender-decoder.katmatfield.com/</a> ), Applied Text Analysis ( <a href="https://textanalysis.beapplied.com/">https://textanalysis.beapplied.com/</a> ) or Eploy ( <a href="https://www.eploy.co.uk/resources/toolbox/check-my-job/">https://www.eploy.co.uk/resources/toolbox/check-my-job/</a> ) to check for gender bias in your job postings?
<b>Interview and Hiring/Selection Processes</b>	Are all members of your hiring committee trained in how to mitigate unconscious bias? Have they declared potential conflicts of interest?
	Have you considered inviting graduate students, postdocs, and junior faculty in your team onto the selection committee, as appropriate, recognizing that this experience is a valuable training opportunity?
	Are you considering other merits of applicants besides GPA and academic achievements?
	Are you using the same assessment process for all candidates? Are you ensuring the process is equitable (e.g., tests/problem solving tasks, standardized interview questions, assessment grids, etc.) and developing the

	interview questions and assessment grids before receiving the applications?
	Are you reserving a certain percentage of positions for those from equity-deserving groups and/or implement preferential hiring of underrepresented groups in pools of qualified candidates?
	Are you working against comfort/similarity (i.e., when two candidates are similarly ranked after interviews, choosing the person who brings something different in background, identity, or life experience)?
	Are you judging CVs differently based on name (“Black,” “foreign,” “female/femme”) alone where other details are identical?
	Are you giving certain people a “pass” based on reputation while holding others to a higher standard?
<b>Onboarding</b>	

#### Onboarding

- Prepare your team
- Identify potential mentors to provide initial support
- Highlight your commitment to EDI
- Provide information on EDI related policies, campus resources, and supports
- Provide information on other resources available (financial, training, etc.)
- Maintain on-going communications –expectations and required accommodations
- Celebrate small wins
- Ask for feedback and learn from it

#### 3.3 EDI in Training and Mentorship

EDI is necessary in training and mentorship to ensure that all trainees and mentees receive the kinds of supports they need to feel a sense of belonging and flourish in their research activities and career trajectories.

#### Mentors versus Sponsors

The following chart comparing the role of the mentor and the sponsor is taken from a resource developed by the Stanford Linear Accelerator Center.

<b>Mentor</b>	<b>Sponsor</b>
Mentors have mentees.	Sponsors have protégés.

A mentor could be anyone in a position with experience desired by a mentee who can offer advice and support.	A sponsor is a senior level staff member invested in a protégé's career success.
Mentors support mentees through formal or informal discussions about how to build skills, qualities and confidence for career advancement.	Sponsors promote protégés directly, using their influence and networks to connect them to high-profile assignments, people, pay increases and promotions.
Mentors help mentee craft a career vision.	Sponsors help drive their protégé's career vision.
Mentors give mentees suggestions on how to expand their network.	Sponsors give protégés their active network connections and make new connections for them.
Mentors provide feedback to aid a mentee's personal and professional development.	Sponsors are personally vested in the upward movement of their protégé.
Mentors offer insight on how a mentee can increase visibility through finding key projects and people.	Sponsors champion their protégés visibility, often using their own platforms and reputation as a medium for exposure.
Mentors passively share the "unwritten" rules" for advancement in their organization with mentees.	Sponsors actively model behaviour and involve protégés in experiences that enable advancement.

In short, mentors advise you and sponsors advocate *for you*.

### **Mentorship/Training/Work Environment**

When applying EDI to your mentorship practices and research environment, ask yourself the following questions:

- Are opportunities to join the team communicated to all potential candidates in an open, inclusive and transparent way? What specific communication channels will be used to ensure your intended reach?
- When hiring trainees and other team members, how will unconscious bias and conflicts of interest be managed and mitigated in the selection process?
- What types of EDI-related training will the academic team and/or highly qualified personnel receive, based on the current level of EDI competency among members and the context of the work environment?
- If your institution has an EDI action plan or EDI commitments and initiatives within its strategic plan, how could the team draw from and/or build on this to foster an equitable, diverse and inclusive research environment?
- What specific practices will be followed to ensure that individuals with family, care, cultural, religious or community responsibilities are supported and not disadvantaged within the team and training environment?
- What specific measures will be taken to equitably promote and foster leadership and mentorship roles for members of underrepresented groups?

- What processes are or will be put in place to ensure that mentorship responsibilities as well as training and career development opportunities associated with the grant are distributed equitably and communicated clearly to team members?
  - What practices are or will be put in place to address and mitigate micro-aggressions, conflicts, unconscious bias<sup>1</sup> and racism that may arise within the team (e.g., complaints management and/or conflict resolution process(es), designated EDI champions, etc.)?
1. Offer more mentorship time for students from equity-deserving groups (e.g., working on English communication with those whose first language is not English, mentorship on scholarship/award applications for first-generation university attenders, etc.).
  2. Keep a record of who within the team has or has not had the opportunity to participate in which activities.
  3. Offer more support for those who may face additional burdens/responsibilities when asked to travel for conferences, etc.
  4. Consider implementing training and processes to enhance skills related to teamwork (i.e., effective and respectful communication, conflict resolution, collaborative problem solving, peer mentorship, etc.).
  5. Highlight relevant research literature that pertains to equity, diversity, and inclusion in training (e.g., articles explicitly about EDI issues/lived experience in the field [i.e., inclusive and accessible workplaces, reconciliation, bias-awareness training, intercultural competence, cultural safety, accessibility and accommodations, microaggressions and discrimination, antiracism, and conflict resolution], articles by authors from equity-deserving groups, etc.).
  6. Consider providing non-Western perspectives on your research.
  7. Talk explicitly about the impacts of scientific realities on people from equity-deserving groups (e.g., how the effects of climate change disproportionately affect disadvantaged people).
  8. Lead informed discussions about anti-racism, anti-homophobia, ableism, etc., in your lab regularly.
  9. Consider and discuss with your trainees potential applications of research in aid of historically marginalized or underrepresented communities.
  10. Be transparent and self-reflective about your positionality, including pronouns, and ensure all team members know about the code of conduct expected in your research environment.
  11. Ensure that all members of the team are invited to help shape the objectives of the study and contribute, especially trainees/early career researchers.
  12. In group meetings and discussions, ensure that all group members are given equal speaking time and not interrupted.

13. Develop a training plan for students and postdoctoral researchers that provides a diversity of training experiences with mentors within the partnership, in different postsecondary institutions in Canada and internationally, and with partner organizations from the public, private and not-for-profit sectors.
14. Encourage or require your trainees to complete EDI-related training modules/self-assessments (Tri-Agency Unconscious Bias Training Module; Gender-based Analysis Plus (GBA+) Training; CIHR training module on Research Involving First Nations, Inuit and Métis Peoples of Canada; [Project Implicit](#))
15. Encourage trainees to attend other EDI training/events/programming at and around the university.
16. Mentor trainees in inclusive, accessible knowledge translation/mobilization for both academic and non-academic audiences.
17. Ensure that the inclusion of all trainees and team members is a proactive consideration in how the team is managed on a day-to-day basis and that team leaders are fostering a safe, respectful and supportive work environment through the language they use and their attitudes and actions.
18. Establish and maintain regular communication with and among trainees and members of the team so that they can develop a positive sense of community and develop safe spaces to discuss workplace environment concerns that could arise and ways to address them.
19. Balance the share of mentoring done by each team member so that all are doing their fair share.
20. Support the development of safe and brave spaces for BIPOC trainees to organize and discuss issues surrounding race in the absence of white people.
21. Encourage affinity groups/networks among equity-deserving team members and trainees.
22. Develop training or mentorship plans with junior team members and trainees. For example, all trainees could work with their mentors to create an Individual Development Plan that identifies both short- and long-term goals. See for example the CIHR Individual Development Plan or [Science Careers myIDP](#).
23. Discuss and develop fair and equitable authorship practices for publications written with your trainees (for example, see the [CLEAR Lab's article on equity in author order](#)).

#### Reference Letters

- Be accurate, fair, clear and balanced.
- Avoid being unduly personal (i.e., use applicant's formal title and surname instead of their first name )
- Use superlative descriptors (for example, excellent, outstanding) judiciously and support them with evidence.

- Support your points by providing specific examples of accomplishments where possible
- Include only information relevant to the evaluation criteria
- Use inclusive language (for example, “the applicant” or “they” instead of “he” or “she”) and free from words or sentences that reflect prejudiced, stereotyped or discriminatory language concerning particular people or groups

### Indigenous Mentorship

unique qualities of Indigenous mentorship, especially in how it differs from non-Indigenous mentorship models.

As you can see from these two diagrams from an article about Indigenous mentorship in the health sciences written by Adam Thomas Murry and his colleagues, there are some key differences.

#### Indigenous Mentorship Model



#### Non-Indigenous Mentorship Model



Whereas non-Indigenous mentorship includes academic and job-related supports, such as offering advice on coursework and career trajectory, Indigenous mentorship utilizes mentee-centred focus on holistic development of the mentee, including fostering and affirming their Indigenous identity, and prioritizing the personal over the professional. This prioritizing of the personal over the professional goes beyond the friendship development expected in the non-Indigenous mentorship model and extends to practicing reciprocity and egalitarianism rather than strict hierarchies. In Indigenous pedagogical practice, both the teacher and the learner have knowledge and skills to contribute rather than a more Western top-down approach. You may have expertise in how to use a centrifuge for separating proteins and nucleic acids, but your mentee may have expertise in Indigenous protocols and epistemologies.

As part of affirming a mentee’s Indigenous identity, Indigenous mentorship models imbue criticality in mentees, which includes teaching mentees to situate themselves between Western and Indigenous worldviews, creating safe spaces for critical reflection and discussion, and addressing decolonization.

Another mentorship model to consider for Indigenous mentorship is a reciprocal mentorship model as outlined in Christine Webster and Kathy Bishop’s 2021 article. In their introduction, they note:

In the Western world, mentorship traditionally has focused on a senior person guiding someone junior for purposes of career advancement; whereas, reverse mentorship involves a younger person coaching someone older on emergent changes such as technology practices and digital literacy. Reciprocal mentorship posits that mentoring has mutual benefits and responsibilities by both parties. From an Indigenous perspective, mentorship is an essential process in the transmission of knowledge from one generation to the next. Leaning on this process-based practice in a Western environment while engaging in the academic research journey can assist with whole-person learning: intellectual, emotional, physical and spiritual. However, in this third

space, it is not only about the Indigenous student being mentored, but also the academic supervisor. The supervisor brings expertise within the academy, and the Indigenous student brings expertise from their community. Both bring their lived experience and knowledge as whole people to the learning process.

In this model, they outline five main areas:

1. Research Positioning is defined by an awareness of inherent power dynamics in a research project, especially when the mentor is non-Indigenous and the mentee is Indigenous, a willingness to listen, and creating a safe space for honest sharing.
2. Reciprocal Mentorship is relationship-oriented and subject to the following assumptions: mutual interest and engagement, mutual trust and respect, willingness to engage in a discussion related to culture, religion, race, ethnicity, etc., and a commitment to rise above cultural differences.
3. Navigating the Two-Worlds speaks to the additional labour Indigenous researchers engage in to understand Western knowledge systems while trying to apply Indigenous knowledge systems. In the reciprocal mentorship model, the mentor and mentee discuss the similarities and differences between Western and Indigenous methods and ways of knowing while paying particular attention to the intentions and assumptions of each. The non-Indigenous mentor also needs to navigate two worlds by understanding the reasoning behind Indigenous students' actions and reactions and the historical experiences of Indigenous peoples to support Indigenous students fully.
4. Finding a Common Language means that careful attention needs to be paid to the use of words, whether in English or Indigenous languages, and whether in academic terminology or plain language. Dialoguing about how the mentor and mentee communicate and alternative, more meaningful ways of talking about the same things is crucial to building a shared sense-making.
5. Having Shared Values helps foster and enhance reciprocal mentorship. Some core values that mentors and mentees may consider are respect, curiosity, integrity, and collaboration. These shared values also allow for accountability to develop between the mentor and mentee.

Another mentorship model to consider when mentoring Indigenous students is trauma-informed mentorship.

Understanding the mental health and psychological experiences of Indigenous individuals and communities involves understanding historical trauma, which can be defined as interpersonal losses passed down within and across generations.

Due to the trauma caused by intergenerational loss and ongoing colonialism and racism, especially as it is built into educational systems like universities, Indigenous students may exhibit some of the following behaviours:

- Difficulty focusing, attending, retaining, and recalling
- Tendency to miss a lot of classes
- Challenges with emotional regulation
- Fear of taking risks
- Anxiety about deadlines, exams, group work, or public speaking

- Anger, helplessness, or dissociation when stressed
- Withdrawal and isolation
- Involvement in unhealthy relationships

To address this trauma productively, you can:

- Prepare to play multiple roles and be patient and flexible
- Recognize that ongoing community trauma and loss will impact your work
- Practice trustworthy, direct communication
- Create compassionate and transparent boundaries
- Know where you can direct your mentee for culturally appropriate supports and care

Here are some questions to ask yourself before beginning your mentorship experience:

- Will you offer time to get to know your mentee in a less formal environment (e.g., over a lunch/coffee, attend an Indigenous event/activity, etc.)?
- How will you encourage your mentee to share their knowledge, interests, and expertise with you?
- How will you practice cultural humility and be self-reflexive about your own position and privilege?
- How will you communicate a sense of realistic optimism about your mentee's capacity to achieve their goals?

### 3.4 EDI in the Research Environment

In addition to applying EDI to your research team, mentorship, and training, it is important to promote and maintain an inclusive and equitable research environment whether it's a lab space, research centre, or a fieldwork trip.

#### EDI Statements

An EDI statement is a useful way to indicate your commitment to EDI in research in grant applications, applications for tenure and promotion, research assistant postings, and research lab/project websites. It is typically one-page long and includes the following elements:

1. **A description of present challenges faced by equity-deserving groups (EDGs) in the field/discipline:** Demonstrate awareness of current hurdles faced by EDGs in your field/discipline.
2. **Examples of past efforts:** Describe specific examples of past involvement and effort on equity, diversity, and inclusion activities. Examples include, but are not limited to:
  1. Mentoring/advocacy: teaching, tutoring, or mentoring in programs for EDGs as well as activities advocating for EDI issues in academia.

2. Education/Outreach: outreach efforts aimed at EDGs, attendance at conferences, seminars, luncheons, etc. aiming at promoting engagement and supporting EDGs.
3. Community/Service: volunteering at a particular organization targeting engagement with EDGs.
3. **Future Plans:** Provide examples of activities and plans that demonstrate a commitment to advance equity, diversity, and inclusion at Illinois. Suggestions might contribute to specific projects already taking place on campus. An applicant could describe commitment by integrating diversity ideas within a research and teaching plan, for example by diversifying a research group or by developing/using teaching practices that accommodate diverse learning styles and/or disabilities. A well-developed plan should show potential to impact a research area, department, campus, and community. It is important to be realistic about level of effort. Creative ideas will be well-received, but feasibility of the proposed activities is important.

Add a statement about your commitment to EDI on your research website, preferably in a section of it aimed at prospective students, so that applicants understand that you value diversity and how you build that into your research group activities.

### Codes of Conduct

1. Develop and communicate a code of conduct for your training environment/lab/research centre to all team members and update as needed.
2. Put in place a complaints management and conflict resolution process to address any issues that could arise, ensure that all trainees and team members are aware of this process, and address any conflicts or issues that arise swiftly and in a sensitive manner, respecting the privacy and confidentiality of those involved.
3. Ask for feedback from team members and respond to it to improve the

“Ten Simple Rules for Building an Antiracist Lab”

### Accessibility

1. Provide accessible spaces for training/work and ensure team members/trainees know they are available (e.g., gender-neutral washrooms, wheelchair accessible entrances, quiet spaces, areas for smudging, etc.). See the Council of Ontario Universities’ [Checklist for Making Science Labs Accessible for Students with Disabilities](#) for more information.
2. Ensure all team members have equitable access to equipment.
3. To support neurodiverse trainees, consider allowing trainees to wear headphones or earplugs and walk around when they want to and providing quiet places.
4. Ensure that the physical spaces used by the research team is safe, including security considerations and buddy systems.

### 3.5 EDI in Community Spaces and Fieldwork

Research may take you and your trainees into spaces outside of the university, especially for fieldwork and research collaborations with community partners and organizations.

- What happens when you place students with partners who do not have the same expectations around an inclusive environment as UWinnipeg?

Imagine you have placed a female student in a male-dominated internship setting. The student feels increasingly uncomfortable with your industry partners. Things like lewd posters on the walls. Sexist language woven into the workplace. Mansplaining/patronizing behaviour. What do you do?

Does this mean your partner(s) need to take down their posters?

That depends entirely on your relationship with them/their willingness to change.

Does this mean you have to visit all internships sites before sending HQP?

Not necessarily

Does it mean that the environment is NOT inclusive for all HQP?

**Yes!!!**

Does that mean that you can't send HQP from historically, systematically, and persistently marginalised groups on internships, or that you can't continue the partnership?

No easy answer...

Communicate with your partners

Have discussions with your partners about expectations for an inclusive environment, and be specific about behaviours and actions that can make HQP feel marginalised

Communicate with your students

- Have discussions with your students about the conversations you had, and expectations you hold for your partners
- Check in with students regularly
- Insist that students inform you if they feel uncomfortable
- Explain to students that it is more important for them to feel safe than for them to finish the internship, and back it up with action if needed. Fear of financial repercussions can be a major factor in a student's decision to speak up about challenges.

### 3.6 EDI in Research Project Governance

If your research project warrants having multiple partner institutions and organizations, you will need to consider project governance structures and procedures. Sometimes this governance is formalized by way of a legal contract or a memorandum of understanding.

When operationalizing EDI in research project governance, you should ask yourself the following questions:

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## Chapter 4: EDI in Grant Applications

### 4.1 Introduction to EDI in Grant Applications

Equity, diversity, and inclusion (EDI)

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### 4.2 EDI in Tri-Agency Grant Applications

EDI has become a focus for the Tri-Agency over the last six years. In 2018, it announced its commitment to EDI with four specific goals.

The agencies are committed to:

- Supporting equitable access to funding opportunities for all members of the research community
- **Promoting the integration of equity, diversity and inclusion-related considerations in research design and practices**
- **Increasing equitable and inclusive participation in the research system, including on research teams**
- Collecting the data and conducting the analyses needed to include equity, diversity and inclusion considerations in decision-making

The two bolded bullet points are the commitments that specifically impact EDI in Tri-Agency grant writing.

Each funding agency within the Tri-Agency (the Canadian Institutes of Health Research; the Natural Sciences and Engineering Research Council of Canada; the Social Sciences and Humanities Research Council of Canada) asks for EDI in different ways and in particular opportunities. Notably, this does not preclude you from incorporating EDI into grant applications for opportunities that do not yet explicitly request it.

#### 4.2.1 EDI in Canadian Institutes of Health Research (CIHR) Project Grants

For CIHR, EDI generally comes up in the request for the nominated principal applicant's certificate of completion for the Sex- and Gender-Based Analysis training modules, the Sex/Gender considerations question, and the research design, methods, analysis and interpretation, and/or dissemination of findings within the Research Proposal.

Several CIHR grant opportunities also ask for EDI information about your team composition and team environment. I will also note that most CIHR grant opportunities ask you to consider meaningful engagement with people with lived or living experience, who often come from equity-deserving populations, in your research proposal and participants sections.

#### 4.2.2 EDI in Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grants

In my department/field/research group, [designated group] are underrepresented/only represent approximately x% of students, which is [above/below] national average. Research indicates that [identify barrier/narrative that might explain why]. To address this I...

Take a few minutes to write down a high-level sentence about the demographic background(s) of your research team over the past six or so years. For ECRs, reflect on your past experience. Goal: Reflect on who your students are and notice any trends.

Consider writing a 'strength narrative' (past HQP –things you've done well) and a 'growth narrative' (challenges that remain –usually described in your philosophy)

Looking at a record of your past HQP, do you notice any trends?

- Any relevant institutional or departmental challenges or opportunities to discuss?
- Is your research group representative of the general trend for the department? In the field?
- Is there any evidence of different outcomes for men versus women in your research group (e.g. based on where HQP go after they leave your team)? Where do the women who leave your group end up (compared with the men)?
- Are the women in your research groups getting jobs at the same rate as the men? Same number of awards? Asked to do the same kind of work? Present equally at conferences?
- If you focus on gender in an application, would it be a success story or a growth area?

#### Proposal Methodology

##### Highly Qualified Personnel Training Plan

To describe the barriers to EDI in your field, type your discipline (i.e., chemistry) and "equity" into a search engine to find information on the state of EDI in your discipline. Based on what you find, you can describe which equity-deserving groups are underrepresented in your field (e.g., women, 2SLGBTQ+ people, Indigenous Peoples, racialized people, people with disabilities, etc.) and potential barriers for them (e.g., Western-based knowledge systems, sexist/racist attitudes, financial limitations, lack of access to social capital, few mentors who have the same identity, biases in assessment, etc.).

Then based on the groups who are underrepresented in your discipline and the barriers you identify, you need to outline your plan of concrete actions to mitigate these barriers. For example, if you find that Indigenous Peoples are highly underrepresented in Chemistry due to the prevalence of Western-based knowledge systems, racism, few Indigenous mentors in science, and financial limitations, you could explain how you will work to address these barriers (e.g., incorporate Indigenous ways of knowing into your research/training, develop a code of conduct for your lab that incorporates "Ten simple rules for building an anti-racist lab" <https://doi.org/10.1371/journal.pcbi.1008210>, ensure all your trainees are aware of the UWinnipeg chapter of .cAISES <https://www.uwinnipeg.ca/caises/> where they can find peer

mentorship, ensure specific additional funding is allocated to supporting Indigenous trainees on your project, etc.).

### **Past Contributions to the Training of Highly Qualified Personnel**

#### 4.2.3 EDI in NSERC Alliance Grants

**Research Plan:** How is EDI being considered in the research process (e.g., research questions, design, methodology, analysis, interpretation, and dissemination of results)?

**Training Plan:** What are the challenges to EDI in the context of your project's training environment? What concrete practices will you implement to address them?

#### 4.2.4 EDI in Social Sciences and Humanities Research Council of Canada (SSHRC) Partnership Grants

For SSHRC, EDI is currently only explicitly requested in the Partnership Grant opportunity, where it needs to be addressed in the Goal and Project Description, the Host Organization Involvement, and potentially in the Budget and Budget Justification.

#### 4.2.5 EDI in New Frontiers in Research Grants

Another grant opportunity that is overseen by the Tri-Agency but not tied to a specific agency is the New Frontiers in Research Fund. The New Frontiers in Research Fund is for interdisciplinary, high-risk / high-reward, transformative research. There are three streams available for this fund: Exploration, Transformation, and International. For all of these opportunities you are required to address EDI in your research design and in your research practice.

- Biographical information about the research team (only with consent)
  - If a team member's self-identification (gender, Indigenous identity, disability or racial background) is relevant to the research project, that self-identifying information may be included here, but only with their consent.
- Research Proposal
  - Explain how the methodological design was informed by EDI considerations, if appropriate
  - Discuss the approaches to Indigenous research, if appropriate– relates to processes for consent, reciprocity, and respect, and complements EDI practices
- EDI determines feasibility in evaluation on a pass/fail basis
  - EDI in research design (referred to as GBA+ in previous Exploration competitions) – relates to project design and project impact on communities involved

EDI in research practice (referred to as EDI in previous Exploration competitions) – relates to team members' practices and research environment

#### 4.2.6 Indigenous Research in Tri-Agency Grants

##### **CIHR**

In all CIHR grant opportunities, you need to consider whether your research involves Indigenous Peoples, and if so, you must address how you will meaningfully incorporate Indigenous ways of knowing and doing into the three main sections of the application:

**Significance and Impact of Research:** The proposed research must be relevant to First Nations, Inuit and/or Métis priorities and have the potential to produce valued outcomes from the perspective of First Nations, Inuit and/or Métis participants and Indigenous peoples more broadly.

**Approaches and Methods:** In addition to demonstrating scientific excellence (Western, Indigenous, or both), the proposed research approaches and methods must respect Indigenous values and ways of knowing and sharing, and abide by Tri-Council Policy Statement Chapter 9: Research Involving the First Nations, Inuit and Métis Peoples of Canada and/or Indigenous partnering community/organizational ethical guidelines or clearly explain why other guidelines have been developed and agreed upon with the study governance body.

**Expertise, Experience and Resources:** Appropriateness of the team based on their overall scientific experience (Western, Indigenous, or both) and skills as well as their Indigenous community-based research experience, track record, relevance of past experience, including expertise related to Indigenous lived experience(s).

##### **SSHRC**

All SSHRC grant opportunities ask whether your proposal involves Indigenous research, and if your project does involve Indigenous research, you need to ensure you address it across your grant application, including within your theoretical frameworks, methods, team composition, training and mentorship, knowledge mobilization, and budget.

#### 4.3 EDI in Non-Tri-Agency Grant Applications

##### **Research Manitoba**

**Gender and Sex-Based Analysis** - sufficient justification must be made as either how the sex and/or gender considerations will be considered in your research proposal, or why sex and/or gender are not applicable in your research proposal.

1. Are sex (biological) considerations taken into account in this study? (Y/N);
2. Are gender (socio-cultural) considerations taken into account in this study? (Y/N);
3. (If the respondent answers "yes" for one or both questions #1 and/or #2) Please describe how the sex and/or gender considerations will be considered in your research proposal. (maximum of 2,000 characters);
4. (If the respondent answers "no" for one or both questions #1 and/or #2) Please explain why sex and/or gender are not applicable in your research proposal. (maximum of 2,000 characters).

### Canada Foundation for Innovation (CFI)

EDI is also a component of the Canada Foundation for Innovation's Innovation Fund. In this opportunity EDI is asked for in the section on **Team Expertise**, including:

- Team members' experience and expertise through traditional and/or non-traditional research outputs.
- Principles of equity and diversity were considered in the team composition including in its leadership. There is a commitment to create an inclusive environment where all team members are fully integrated and supported in the research team.

Under the evaluation criterion of **Benefits**, proposals can be assessed according to the following EDI-influenced principles:

- Increased participation of underrepresented groups (including those who may face systemic barriers)
- Increased scientific literacy among the public
- Public engagement
- Partnerships outside of academia
- Published datasets

These criteria largely speak to accessibility and inclusivity being built into your research infrastructure.

#### 4.4 General Tips for Writing EDI into Grant Applications

- Never use boilerplate, vague statements. All EDI plans should be concrete, detailed actions that are relevant to your particular research program and/or project.
- Do not include a laundry list of all possible EDI activities/plans – be strategic and thoughtful about which ones you use and make them more detailed. Quality over quantity is important here.
- Focus on the team's commitment to EDI, not on its EDI profile.
  - This means no diversity quotas/targets or tokenism. Reviewers are not evaluating you based on the composition of your research team or whether it is "balanced."
  - You should prioritize strategies over specific percentages/numbers.
- You may draw on institutional EDI policies, programs, and practices where these exist, but they must be tailored to the particular context of the fields and teams involved. These institutional supports should be directly related to the actions you and your team are taking. For example, if you say that The University of Winnipeg has a Respectful Working and Learning Environment Policy and Procedures, elaborate on how you will take actions to enforce it within your research environment and project, such as developing a Code of Conduct for your lab based on this policy. If you want to include

previous EDI-related training that you've taken (e.g., unconscious bias, mental health first aid, EDI in Research Certificate, etc.), explain something specific about the training that you will apply to your research design or practice. This detail will demonstrate that you actually learned and modified your way of doing things as a result of such training.

- Summarize what is already known in your area of inquiry in relation to EDI and identity factors (gender-/sex-based data, intersectional data, historical biases, etc.) and how your work will build on it.
- Be realistic about challenges/barriers to EDI in your research/field/project/institution.
- Use evidence if you have it (statistics about representation in your field using Stats Can or CAUT Almanac, articles about EDI in your field or area of inquiry, community feedback/findings from previous engagement activities, university-level EDI data for faculty and students, etc.)
- Your proposed actions should be connected to these challenges/barriers.
- Use inclusive language. This means not only using neutral pronouns like they or them, rather than she or he, but also the use of non-exclusive terms such as “persons experiencing homelessness” rather than “the homeless,” and “birthing people” rather than “women” or “mothers.”
- Do not confuse terms like sex and gender or equality and equity. Sex refers to biological characteristics in humans and animals (i.e., female, male, intersex) while gender refers to the socially constructed roles, behaviours, expressions, and identities of girls, women, boys, men, and gender-diverse people. Gender is not a binary but a range of identities. Equality is giving everyone the same treatment while equity is giving everyone customized treatment to ensure they are brought up to the same level of access and participation.
- If EDI principles are not applicable to your research design, clearly and thoughtfully justify **why**. Never say that they are not applicable without detailed justification.
- Have ways to monitor, evaluate, and be accountable for the impact of your EDI-based design and practices. This may mean regular check-ins at research meetings. Or perhaps it's collecting feedback from your trainees about their experiences working with you. If you intend to monitor and evaluate your EDI practices, you can describe that in your application.
- There's always more you can do or improve upon. The work of EDI is never finished; it's an ongoing process.

#### 4.5 EDI Guides for Grant Writing

For more information about EDI in grant writing, you can consult a variety of external guidance documents, including those from the Tri-Agency, including:

##### **Canada First Research Excellence Fund**

[Equity, Diversity, and Inclusion Requirements](#)

**Canadian Institutes of Health Research**

[Defining Indigenous health research](#)

[EDI resources from CIHR](#)

[Resources on integrating sex and gender in health research](#)

[Resources – Accessibility and eliminating systemic ableism](#)

**International Development Research Centre**

[Guide to Integrating Gender in your Proposal](#)

**Natural Sciences and Engineering Research Council of Canada**

[EDI in an NSERC Discovery Grant Application: Frequently Asked Questions](#)

[Foire aux questions fréquentes: Demande de subvention à la découverte du CRSNG](#)

[Guide for Applicants: Considering equity, diversity and inclusion in your application](#)

[NSERC Alliance Grants: Equity, diversity and inclusion in your training plan](#)

[NSERC guide on integrating equity, diversity and inclusion considerations in research](#)

**New Frontiers in Research Fund**

[Best Practices in Equity, Diversity and Inclusion in Research](#)

**Social Sciences and Humanities Research Council of Canada**

[Guide to Addressing Equity, Diversity and Inclusion Considerations in Partnership Grant Applications](#)

[Guidelines for the Merit Review of Indigenous Research](#)

## EDI Resources at The University of Winnipeg

### EDI Hub

- For more resources on EDI in Research Design, visit the [UWinnipeg Research Design Resource Library for Equity, Diversity, and Inclusion](#).
- For more resources on EDI in Research Practice, visit the [UWinnipeg Research Practice Library for Equity, Diversity, and Inclusion](#).

Program Officer, Equity, Diversity, Inclusion, Anti-Racism, and Decolonization and Research

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## Appendix 1: Social Identity Exercise

Adapted by Dr. Jennifer Adams from the Program on Intergroup Relations and the Spectrum Center, University of Michigan.

### Social Identity Profile Activity

Social identity groups are based on the physical, social, and mental characteristics of individuals. They are sometimes obvious and clear, sometimes not obvious and unclear, often self-claimed and frequently ascribed by others. Racial groupings in settler-colonial contexts like Canada and the United States are based on historical and arbitrary racial construction. These groupings are then ascribed to individuals and also self-claimed; for example, government, schools, and employers often ask people to claim a racial identity group or simply ascribe one to them based on visual perception. Other social identities are personally claimed but not often announced or easily visually ascribed such as sexual orientation, religion, or disability status. For some of our social identities, we may choose to keep them confidential for purposes of personal safety.

For the purpose of this self-examination please identify the memberships you claim or those ascribed to you and that you are comfortable sharing at this time. Since issues of social identity are often the basis of much social conflict, it is reasonable to expect that even the terms used in this activity to describe them may cause disagreements. So please feel free, wherever necessary, to use your own preferred terms in the responses.

Social Identity Category	Social Identity Groups
Gender	Female, Male, Cisgender, Bi-Gender, Gender Non-Conforming, Gender Queer, Gender Expansive, Non-Binary, Genderfluid, Non-gendered, Third Gender/Fa'afafine, Trans Woman, Trans Man, Two-Spirit
Race	<i>Race</i> refers to physical differences that groups and cultures consider socially significant. Asian, Indigenous/First Nations, Black, Latina/o/x, Middle Eastern, White, Bi-Multiracial
Ethnicity	Ethnicity describes the culture of people in a given geographic region, including their language, heritage, religion, and customs. African, Caribbean, Jewish, Middle Eastern, Asian, Pacific Islander, etc.
Sexual Orientation	Asexual, Bisexual, Demisexual, Gay, Heterosexual, Lesbian, Pansexual, Queer, Questioning, etc.
Religion/Spirituality	Muslim, Jewish, Catholic, Christian, Buddhist, Hindu, Agnostic, Pagan, Atheist, Yoruba, Indigenous spirituality, etc.
Social Class	Poor, Working Poor, On public assistance, Working Class, Lower Middle Class, Upper Middle Class, Owning Class
Age	Child, Adolescent, Young Adult, Middle Age, Elder
Dis(Ability)	Chronic illness, Cognitive, Hearing, Physical mobility, Neurodiversity (Autism, ADHD, etc.), Vision
Nationality	Canadian, American, Jamaican, Nigerian, Irish, Vietnamese, Brazilian, Mexican, Lebanese etc.
Language(s)	English, French, Chinese, Creole
Body Size	Fat-bodied, Thick, Athletic, Thin, etc.
Other	Rural, Urban, Parent, Immigrant, Vegan, etc.

**Social Identity Profile**

Please complete the grid by writing your social identity categories in the corresponding “Group Membership” column. Then CHECK the ONE group membership (at most TWO) that, in your experience, best fits the description in each of the other columns.

<b>Social Identity</b>	<b>Group Membership</b>	<b>You are most aware of</b>	<b>You think about least</b>	<b>Makes you least comfortable</b>	<b>Makes you most comfortable</b>	<b>Give you power and status in society</b>	<b>Denys you power and privilege in society</b>	<b>Has the greatest effect on how you see yourself as a person</b>	<b>Has the greatest effect on how others see you</b>
Gender									
Race									
Ethnicity									
Sexual Orientation									
Religion/Spirituality									
Social Class									
Age									
Dis(Ability)									
Nationality									
Language(s)									
Body Size									
Other									

## Appendix 2: Frequently Asked Questions

**Question 1:** My research doesn't involve humans or animals, so how can I incorporate EDI into my research design?

Even if your research doesn't involve humans or animals, you can incorporate EDI into your research design based on whom will be impacted by your research.

- Could your research have inequitable effects or impacts on different populations (e.g., women, 2SLGBTQ+ people, racialized people, Indigenous Peoples, people with disabilities, etc.)? If so, how will you mitigate negative impacts and amplify positive impacts?
- Could your research benefit certain equity-deserving groups? If so, how might you include them in designing your research? How will you mobilize your knowledge effectively to them?
- I highly recommend walking through the federal Gender-Based Analysis Plus training online to think through your research with an EDI lens and documenting the reasons for whether your research is or is not relevant to equity-deserving groups. This kind of exercise is also something you could do with your research team and trainees.

**Question 2:** I'm a natural sciences researcher who studies animals, but I don't see how I can apply EDI-based theoretical frameworks or methodologies, which seem rooted in humanities and social sciences, to my research.

There are at least a couple of ways to approach research using non-human animals with an EDI lens. One way is to consider diversity and inclusion among the non-human animal populations you are using. For example, are they diverse in terms of sex, age, and genetic strain? Could diversity impact the generalizability and applicability of your findings?

A second consideration is thinking about anti-colonial frameworks for interacting with non-human animals in an ethical way. For example, the Civic Laboratory for Environmental Action Research (CLEAR) at Memorial University does not dispose of the fish guts they analyze as biohazardous waste, but returns them to the ocean with Indigenous ceremony led by a local Indigenous Elder. This method honours Indigenous ways of knowing and doing, including the importance of relationality with all things.

**Question 3:** There simply aren't that many Indigenous or Black students in my field at my institution to access for recruitment. How can I write into my grant that I will train and mentor these groups?

When there are many upstream barriers for equity-deserving populations to participating or choosing certain fields, including barriers at the K to Grade 12 level, you can note this in your application. You can also consider ways in which you may help address upstream barriers and write about these in your application. For example, you could volunteer in outreach programs or camps for equity-deserving children and youth or pathway programs for equity-deserving

undergraduates. It is also worth noting that you do not need to address how you will consider every equity-deserving group in one application. Quality over quantity is important here.

**Question 4:** My research team is already pretty diverse. Do I need to write about EDI in grant sections about research practice?

Even if you think your research team is already diverse, you need to write about EDI in your research practice. Firstly, your team may be diverse by chance rather than due to any actions you've taken. Secondly, there is always room to improve diversity through inclusive and equitable practices. The fact that a team is diverse does not mean that its members are necessarily unaffected by unconscious biases, exclusion, inequity, etc.

**Question 5:** Isn't it enough to say that I'm practicing EDI by distributing my time and resources equally to all of my team members and trainees?

No, because equality is not the same as equity. Unlike equality, equity does not mean sameness of treatment, but instead differing treatment and redistribution of resources to level the playing field for all. For example, you may need to provide more funding to a student who is also a caregiver to ensure that they can attend a conference. You may also need to provide more time to a student for whom English is a second language to support their communication needs.

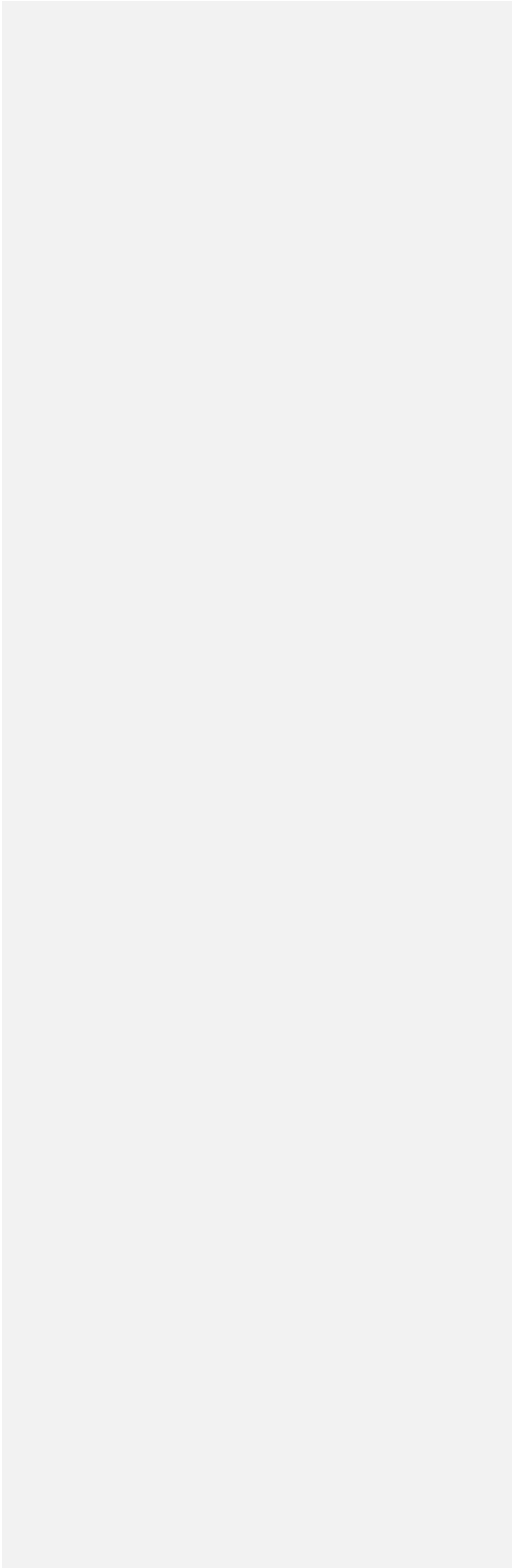
**Question 6:** What if my institution and department do not track EDI data for faculty and students? How can I provide evidence for which groups are underrepresented?

If your institution and/or department does not track EDI data, you can still provide evidence based on broader trends beyond your institution, including articles and statistics about your discipline or research area. A good way to explore this is by typing your discipline or field plus the word "equity" into a search engine. Alternatively, you can type your field plus barriers plus university into a search engine to see what you find. Some scholarly associations are also starting to keep track of EDI within their disciplines, so you can look at the most appropriate ones for your field to see if they have any information or data.

**Question 7:** What if I tried to implement certain EDI practices in the past, and they didn't work?

You can always explain what you did in the past and reflect on why it didn't work. Then you can describe how you will change your practices in response to these failures.

Appendix 3: Indigenous Data Sharing Agreement Sample Templates



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