

Implementing Equity Diversity and Inclusion (EDI) in Research Applications

Jenna Ives, Research Engagement Manager

Aditi Sharma, Research Facilitator, Natural Sciences and Engineering

Panelists: Tanya Dahms, Kevin Ng, Gwen Grinyer

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Land Acknowledgement

The University of Regina and its federated colleges are on Treaty 4 & Treaty 6 — the territories of the nêhiyawak, Anihšînāpēk, Dakota, Lakota, and Nakoda peoples, and the homeland of the Michif/Métis nation.

Outline

- **Part 1: EDI Foundations of Research**

- EDI Groups in Research
- Intersectional Complexities
- EDI Barriers and Benefits

- **Part 2: Implementing EDI in Research Applications**

- Research Plan, Team and HQP Training
- Writing a Strong EDI Statement - examples

- **Part 3: Panel Discussion**

- Dr. Tanya Dahms, Dr. Kelvin Tsun Wai Ng, Dr. Gwen Grinyer



Part 1:

EDI Foundations of Research

- 1. EDI Groups in Research**
- 2. Intersectional Complexities**
- 3. EDI Barriers and Benefits**

Recognized EDI Groups in Research

Equitable representation and considerations, specific to the following four designated groups in Canada:

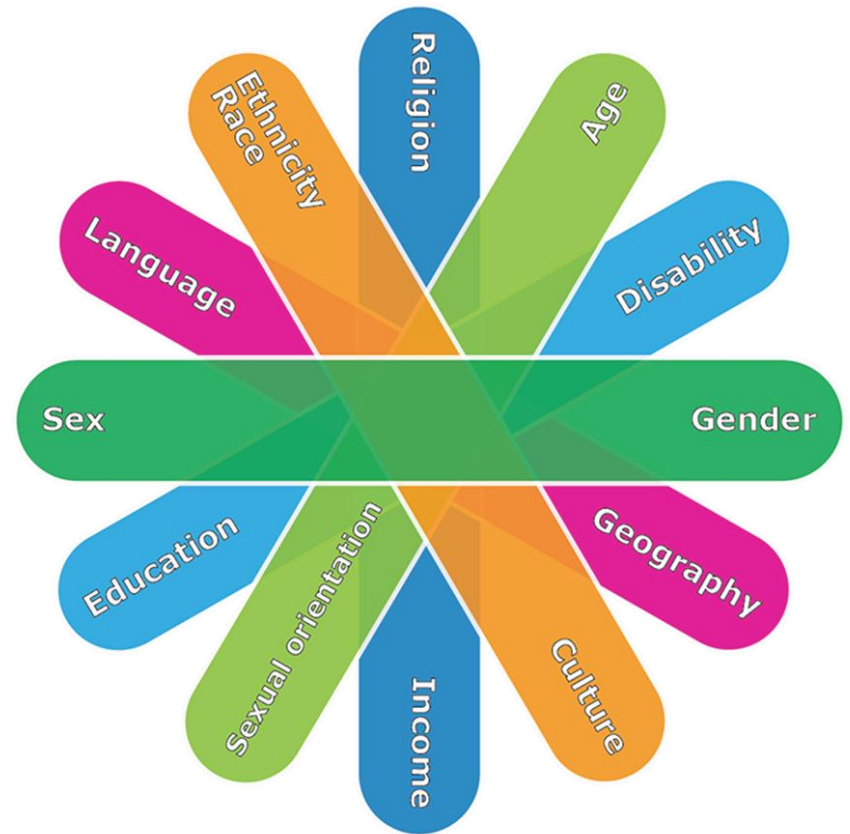
- Women and gender diverse individuals
- Indigenous (First Nations, Inuit or Métis) Peoples as rights-holders
- persons with disabilities, and
- members of visible minorities

“For Canada to lead the pack in the global science and innovation race and address key societal challenges, we need to foster a truly inclusive research environment. In particular, addressing complex problems requires a broad range of perspectives and experiences.”

–Report of the Advisory Panel on the Federal Research Support System

Intersectional Complexities

EDI groups part of the complex systems, barriers and power structures that impact equitability in the research ecosystem



Systemic Barriers in Research

- Systemic barriers are defined as attitudes, policies, practices or systems that result in individuals from certain population groups receiving unequal access to or being excluded from participation in employment, services or programs (e.g., through discrimination, racism, sexism, homophobia, transphobia, ableism, etc.).
- These barriers are systemic in nature, meaning they result from individual, societal or institutional practices, policies, traditions and/or values that may be “unintended” or “unseen” to those who do not experience them.
- They can have serious and long-lasting harmful impacts on individuals, such as on their physical and mental health, emotional well-being, life expectancy, physical safety, job and financial security, and career progression.

Benefits of EDI in Research and Training Environments

- Improved **access to talent/expertise**
- Improved collaboration, **collective intelligence and creativity**
- Different points of view leading to **improved performance**
- Greater capacity for **innovation**
- Enhanced **recruitment and retention** through effective mentorship and supportive work environments
- Inclusion allows for the **realization of the potential of diversity**

Part 2:

Addressing EDI in Research Applications

- 1. Research Plan/ Design**
- 2. Research Practice (Team & Environment)**
- 3. Training of Highly Qualified Personnel**

I. EDI in Research Plan/Design

To promote rigorous research with results that are impactful and relevant to the diversity of the population (national, regional, international).

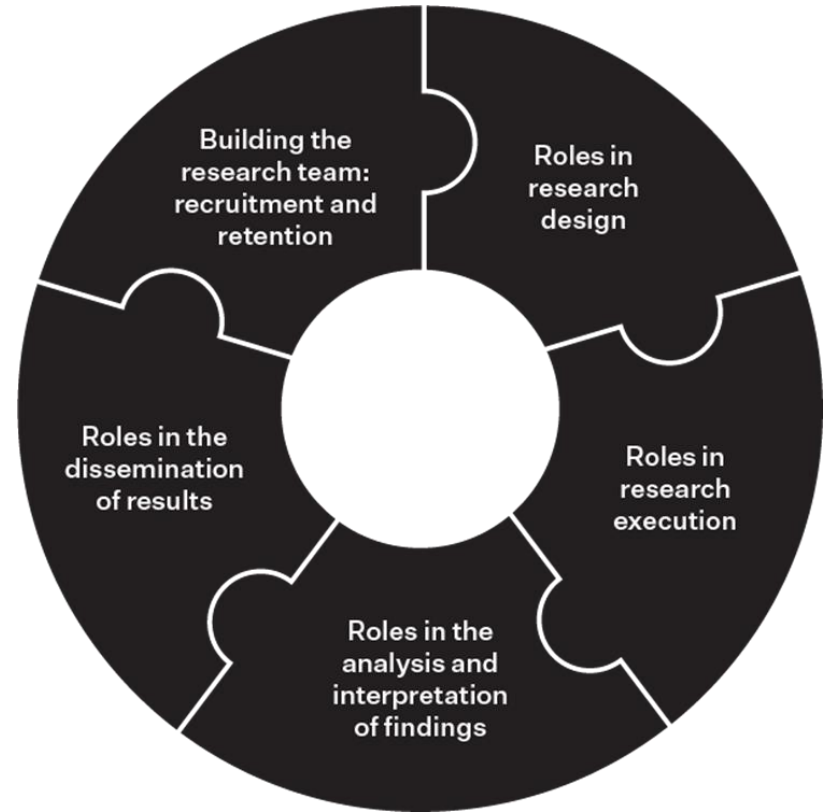


NSERC guide – EDI in Research Plan

II. EDI in Research Practice

- Team composition and recruitment processes
- Inclusion in the research environment

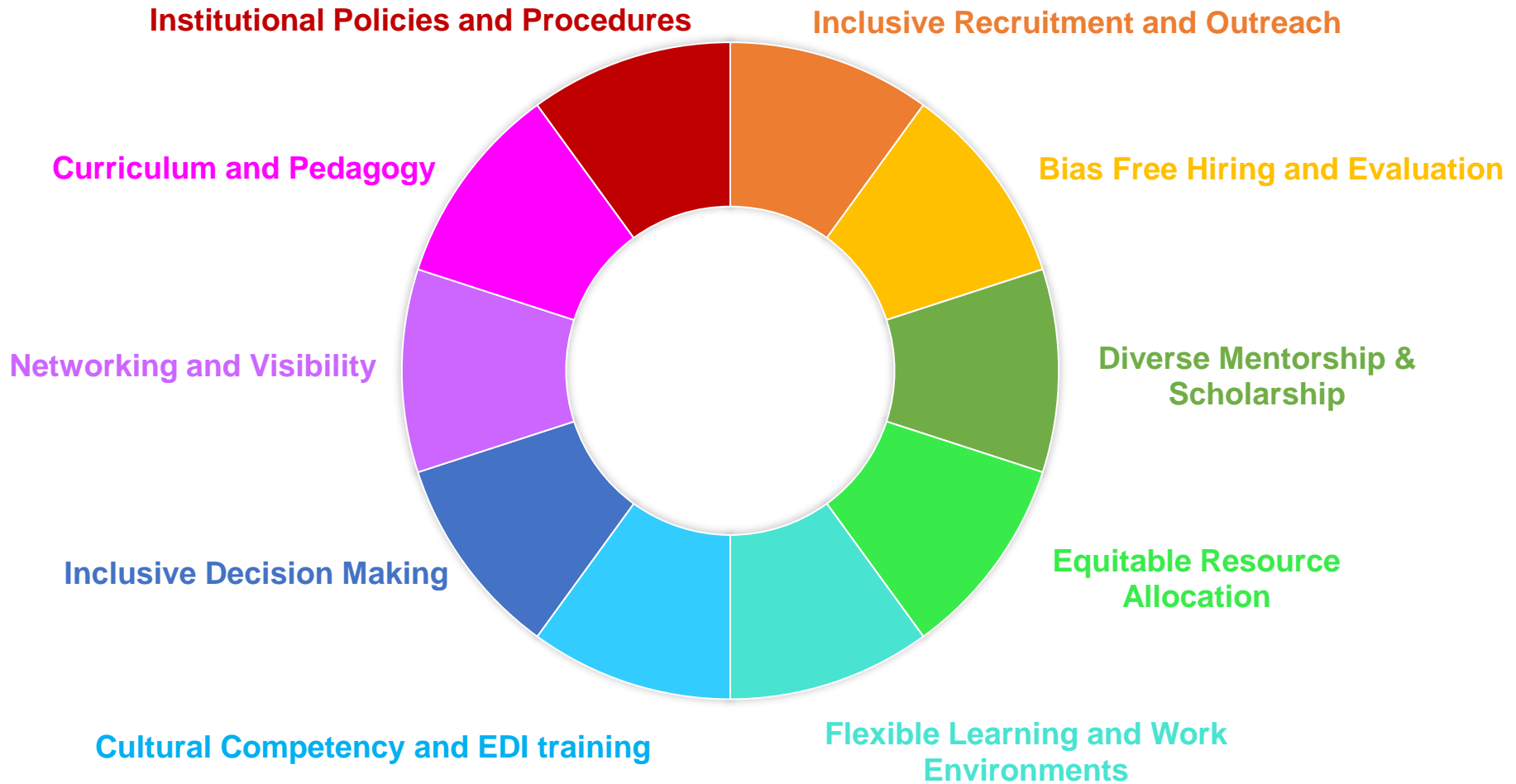
Diverse knowledge and expertise enhance creativity and effectiveness, but only when team members integrate and exchange their knowledge



NSERC guide: Research Team

SSHRC, CIHR

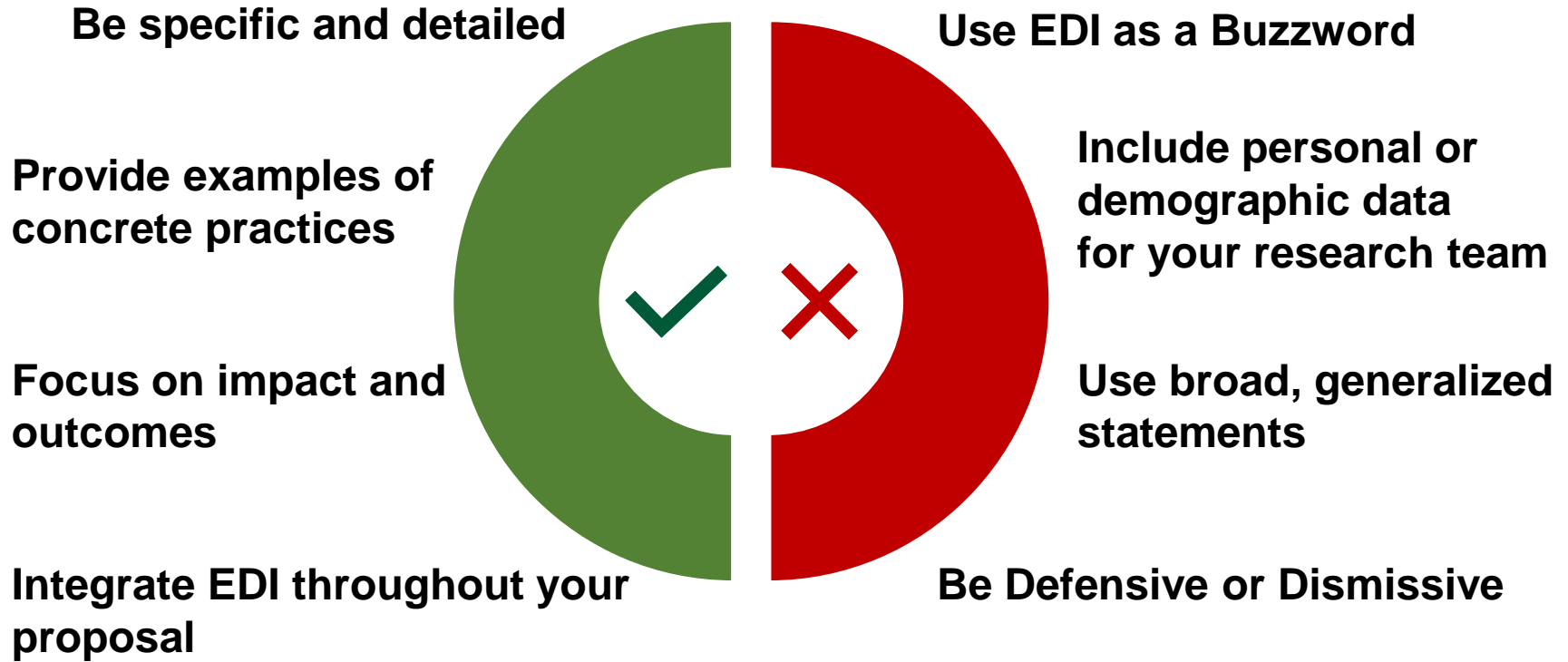
III. EDI in HQP Training



Tips for Writing EDI Sections

- **Brainstorm – Identify an EDI Challenge**
 - What systemic or localized barriers exist, related to my research team and trainees, institution, or field of research?
 - Sources of information –Institutional EDI plan, Publicly available research
- **Describe your Action Plan**
 - What specific and concrete action(s) will you take?
 - Have you incorporated multiple aspects to address your barriers?
 - Refer to actions that have been effective in addressing the identified issue
- **Develop your Monitoring and Adaptation Plan**
 - How will you know if your action plan is working?
 - How will you adjust your plan based on your monitoring results?
- **Building Training Plans from EDI Learnings**
 - Use previous learnings to inform your proposed training plan

Do's and Dont's



Merit Criteria – EDI in HQP Training - Alliance

Exceptional

Links proposed actions or practices to empirical or scholastic evidence supporting their effectiveness

Describes a strategy to monitor progress and adapt plan as necessary

Exceeds

Meets

Describes at least one proposed specific and concrete action or practice to support EDI in the training plan

Describes proposed actions or practices in multiple aspects of the training plan

Links proposed actions or practices to existing systemic and localized barriers

Does Not Satisfy

The training plan does not adequately outline specific and concrete practices to advance EDI in training environment

Examples: Addressing EDI

We are committed to promoting diversity in our research team. We will ensure that everyone, regardless of gender, race, or background, is treated equally. I will work with my co-applicants and collaborators in this Alliance grant to ensure that all HQP evolve in an environment where EDI principles are upheld.



Please note that the examples provided have been adapted from a slide provided during a workshop from NSERC, which in turn were used with permission from a submitted application.



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How will you rate this EDI section?

① Start presenting to display the poll results on this slide.

Does Not Satisfy

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<input type="radio"/> Specific	<input type="radio"/> Contextual	<input type="radio"/> Multiple Aspects	<input type="radio"/> Evidence-based approach	<input type="radio"/> Monitoring and Adaptation plans
Meets	Exceeds	Exceptional		

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Examples: Addressing EDI

The engineering department has traditionally been male-dominated, but the PI is actively working to change this by offering laboratory tours for female high school students and encouraging the next generation to pursue STEM careers. This is especially important for research as Diaz-Garcia et al. determined that incorporating women in research led to a significant positive relationship between gender diversity in R&D researchers and radical innovation[37].

We will draft the job description using inclusive language to encourage applications from underrepresented groups and implement a blind recruitment process that omits personal information, which has been shown to increase interview invitations [23]. Newly recruited HQP will be paired with a mentor (a senior PhD student or postdoc) to provide guidance. Our diverse research team, representing various genders and races, will ensure mentors are selected who can best support underrepresented individuals, as students often value mentors with whom they share demographic or value-based connections [24]. To promote an inclusive environment, team members will give presentations on their backgrounds and journeys to the university. Additionally, transparent research practices will be maintained by using a booking schedule to ensure fairness and predictability in access to shared equipment.

We will monitor our efforts by gathering anonymous feedback from participants. Success will be measured through non-demographic indicators such as contributions to research reports, presentations, scientific articles, skill development, and overall well-being. This data will help us refine and adapt our approach. For instance, if students report poor mental health, we will ensure they are informed about available mental health resources and offer individualized check-ins to provide the necessary support.

- Specific
- Contextual
- Multiple Aspects
- Evidence-based approach
- Monitoring and Adaptation plans

Meets	Exceeds	Exceptional
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How would you rate this EDI section?

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Exceptional

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Specific



Contextual



Multiple Aspects



Evidence-based approach



Monitoring and Adaptation plans

Meets

Exceeds

Exceptional



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Part 3:

Panel Discussion

- 1. Dr. Kelvin Tsun Wai Ng**, Professor, Environmental Systems Engineering
What EDI issues exist in your field of research, and how did you address it in your application?
- 2. Dr. Gwen Grinyer**, Associate Professor, Physics
How will you know if your action plan is working, and how did you adjust your plan based on your monitoring results?
- 3. Dr. Tanya Dahms**, Associate Dean of Science (Research), Chemistry and Biochemistry
What are the biggest problems that you have seen on applications as a reviewer?

Questions?



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Thank you

Grant Applications

Research Facilitator Email

Health

Somiraa.Said@uregina.ca

Natural Sciences and
Engineering

Aditi.Sharma@uregina.ca

Social Sciences and Humanities

Barb.Flynn@uregina.ca

Additional EDI Support

Email

Post-award EDI Research Team
support

urincluded@uregina.ca

Research Engagement

research.engagement@uregina.ca

Support Resources

- [Equity, Diversity and Inclusion: A Best Practices Guide for Recruitment, Hiring and Retention.](#)
- [NSERC Guide for Applicants: Considering equity, diversity and inclusion in your application.](#)
- [NFRF Best Practices in Equity, Diversity and Inclusion in Research.](#)
- To see a complete list of available resources, please visit [Equity, Diversity and Inclusion Resources | University of Regina](#)

What are the greatest EDI issues on applications?

The Reviewer's Perspective

Disingenuous

Unverified

Vague

1

Set the stage: What is the current state of EDI in your field, UofR?

Anecdotal statements do not instill confidence:

- I believe many professors in my field also still have this historical challenge.

Back up your statements with the literature!

- Benefits of diversity to science (literature ref), yet those of different socioeconomic, racial, religious, disabled, and LGBTQ2S+ status are underrepresented in Science, experiencing the field with less agency (ref from your society).
- Students are drawn to successful mentors in whom they see a reflection of themselves, fostering a sense of belonging and validating their aspirations within that space (ref)
- Women hold 34% of STEM degrees, only 23% hold positions (Statistics Canada), and author less than 35% of scientific publications (literature ref) ...
- Indigenous students, comprising 17% of the Saskatchewan population (ref), 15% of UofR students, but only 1% in the Faculty of Science

2

Plan: What actions can you take (future) to shift EDI in your field and in the context of your proposed research?

Vague statements are not helpful:

- To facilitate inclusion of representatives of underrepresented groups in my field, I try to motivate all my undergraduate students to continue their studies in this field

Be incisive, effective and genuine, backed by the literature and linking back to issue:

- Inclusive language in advertisements/interviews, advertise on multiple platforms (Canadian Black Scientists, Women in Science) – attract/encourage a diverse applicants
- Lab code of conduct (safety), flexible work schedules, conference support, inclusive group meetings (respect all opinions) and events, advertise campus resources,
- Participate as a group in workshops offered by your society, UofR (e.g. EDIA, micro-aggressions, unconscious bias), discuss in group meeting
- Serving as a strong role model (e.g. women, underrepresented group, LGBTQIA2S+), publications with a diverse set of HQP, cultural sensitivity, social groups on campus
- Teaching/talks at institutions (e.g. FNU) or science camps with underrepresented groups, committees you sit/will sit on that can influence hiring practices etc.

3

Reflect: How will you monitor your progress?

Statements not backed by data have no impact:

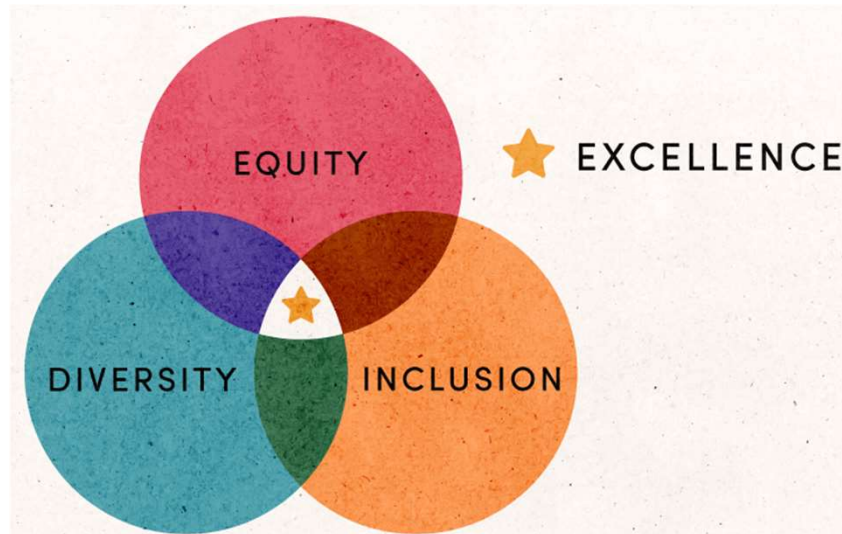
- I know that my EDI plans are working because I receive many applications every year from students outside of Canada.

The data doesn't lie:

- Solicit anonymized feedback from your group members – if your group is small, get someone else to do this for you – this can include qualitative data
- You can track the retention of your group members over time – did they stay in the field, are they contributing to EDI in their workplace?
- You can track HQP contributions to publications and the number of conferences attended, additional conference support for caregivers to present at conference
- You can track the overall well-being of your trainees – what would success look like?

4

EDI



(Lemke and Sconiers, U of Utah Health, 2023)

5

EDI NSERC

- Extensive resources:

https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Policies-Politiques/EDI_guidance-Conseils_EDI_eng.asp#Relevant%20Resources

6

EDI

Equity - more institutional, scientific society, big picture type of questions. How do we address historic harms and present-day systemic barriers that advantage some groups over others? How do we allocate our resources? Do we have fair processes for employees related to hiring, mentoring, evaluation, discipline, etc.? What makes you belong or not belong?

Diversity is the richness of human experience, the identities, and social groups to which we belong. For example, race and ethnicity, gender, sexual identity, class, language, faith, veteran status, to name a few.

Inclusion is whether or not we belong. Do I have a voice here? Can I be my authentic self? Am I part of the team without having to hide pieces of myself? Am I respected by my coworkers and supervisors? Will I be able to grow and advance my career here?

(Lemke and Sconiers, U of Utah Health, 2023)

