

Equity, Diversity and Inclusion Considerations in the Alliance Training Plan

How to develop your training plan in support of sub-criterion 3.2

Presented by NSERC's Alliance Equity, Diversity and Inclusion (EDI) Outreach team

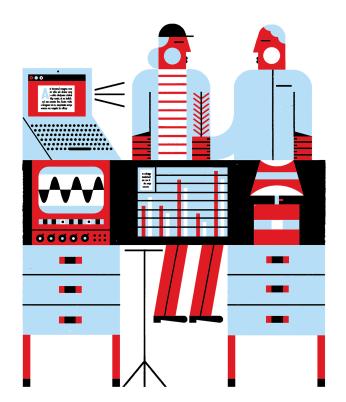
Outline

1. Importance of EDI in the research team

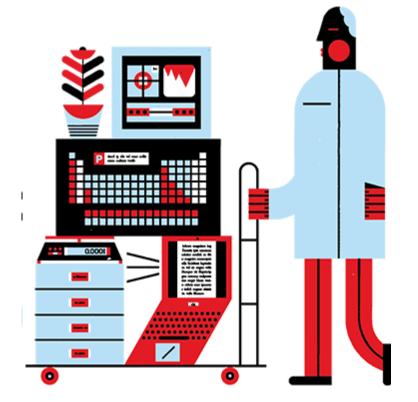
Why NSERC is asking you to consider EDI in the research team

2. EDI in the Alliance application

- Where to address EDI in your project proposal
- **How** EDI will be evaluated in your training plan
- 3. Writing a strong EDI statement in the training plan
 - **How** to describe your "Exceptional" EDI training plan
- 4. Examples



1. Importance of EDI considerations in the research team



Why consider EDI in your research team?

- Members of many equity-deserving and rights-holding groups remain underrepresented in science and engineering disciplines and research environments due to systemic barriers to entry and not their inherent capacity.
- Equity aims to eliminate disparities and disproportions that are rooted in historical and contemporary injustices and oppression.

"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."

- <u>Report of the Advisory Panel on the Federal Research Support System</u>

EDI Considerations contribute to excellence for research and training environments

Research is **strengthened** when persons with diverse perspectives and experiences participate equitably within inclusive environments.

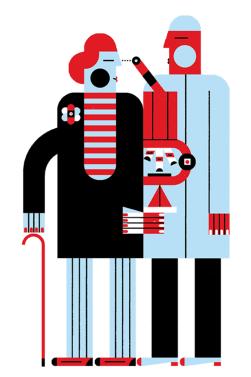
Benefits of EDI in research and training environments:

- Improved access to talent
- Improved collaboration and collective intelligence and creativity
- Different points of view leading to improved performance
- Greater capacity for innovation
- Enhanced recruitment and retention through effective mentorship and attractive work environments

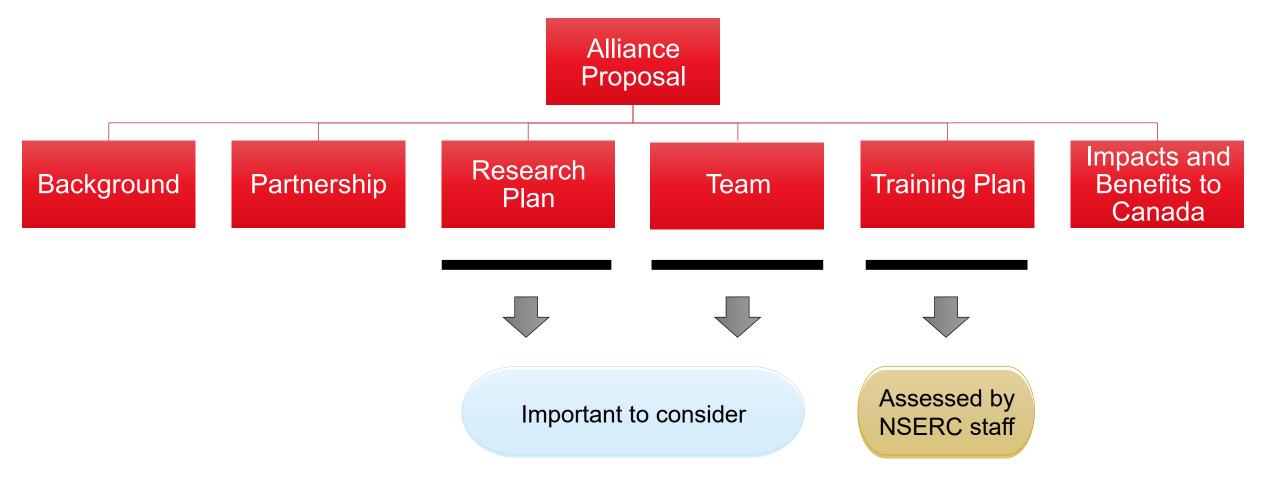
Inclusion allows for the realization of the potential of diversity.



2. EDI in the Alliance application



Where do I need to address EDI considerations in my project proposal?



Training Plan

- Describe the learning experiences the project will provide, including the nature of interactions between trainees (undergraduate and graduate students, postdoctoral fellows) and partner organizations.
- Describe the research and professional skills that trainees will develop through these experiences and through their roles in the project.
- Explain how the research and professional skills gained by the trainees will prepare them for their future careers.
- Describe challenges to equity, diversity and inclusion in the context of your project's training
 environment and specify concrete practices you will implement to address them. You are encouraged
 to cite evidence supporting the proposed practices and to describe how you will monitor and adapt
 your actions based on non-demographic indicators of success.

Excerpt from Alliance grants Proposal Template

Evaluated using merit indicators for sub-criterion 3.2

Alliance Grant Merit Indicators: <u>https://www.nserc-crsng.gc.ca/_doc/alliance/Merit_Indicators-Alliance_Grants2_e.pdf</u> Alliance Grants Proposal Template: <u>https://www.nserc-crsng.gc.ca/_doc/alliance/Proposal_Template-Alliance_Grants2_e.docx</u>

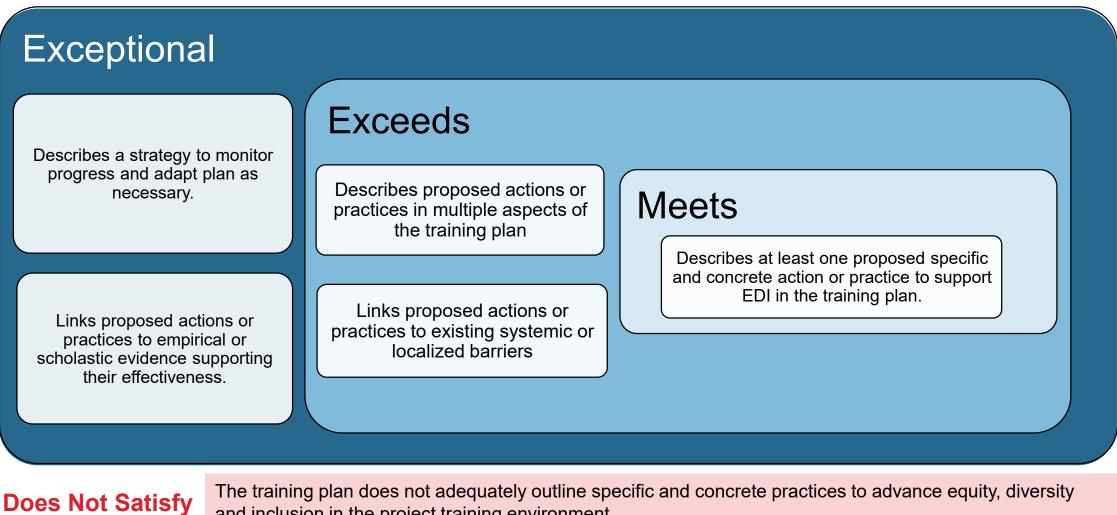
Merit Indicator 3.2: Consideration of equity, diversity and inclusion in the training plan

To achieve an **exceptional** rating:

 identify an EDI issue, and propose EDI practices that are specific, concrete, context-specific, based in evidence, and address multiple aspects of the training plan. Include a plan to monitor and to adapt the plan if necessary.

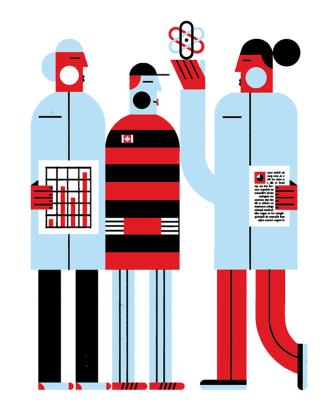


Updated Merit Indicators for EDI in the Training Plan



and inclusion in the project training environment.

3. Writing a strong EDI statement in the training plan



How to incorporate EDI into your training plan

1. Define the context

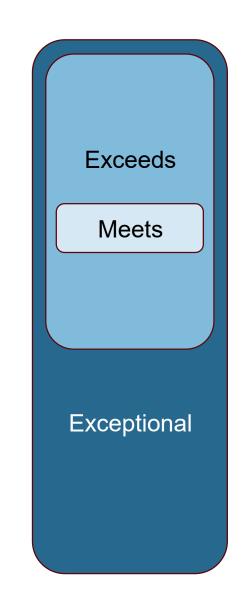
- What EDI issues exist in your field of research or institution?
- Which issue will you focus on addressing?

2. Describe your action plan

- What specific and concrete action(s) will you take to address barriers in EDI ?
- How will your plan address the *identified issue*?
- Have you incorporated multiple aspects in your training plan (e.g., recruitment, opportunity, work environment)
- What empirical evidence do you have that these actions will be effective in addressing the identified issue?

3. Describe 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?

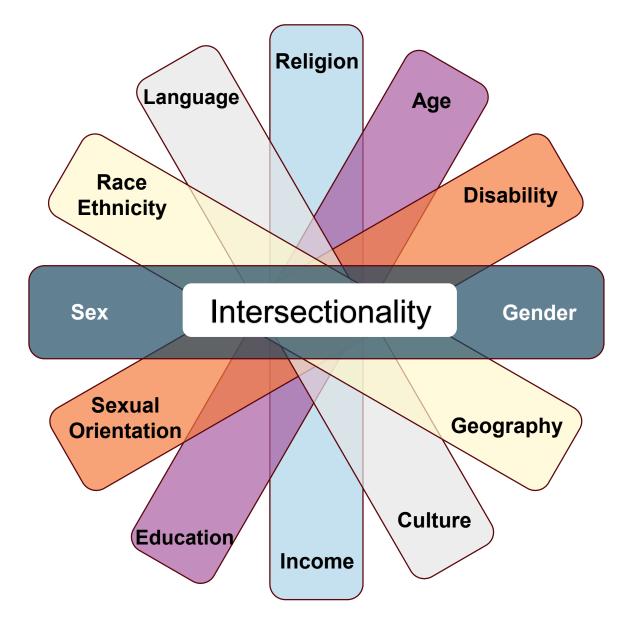


1. Define the Context



Guiding questions:

- What EDI issues exist in your field of research or institution?
- Which issue will you focus on addressing?



Brainstorm

Where might you look, or what might you do to identify the EDI challenges your discipline/ institution/lab is facing?

- publicly available research
- blog posts, social media, podcasts by individuals from underrepresented groups
- your institution's EDI action plan

2. Describe your action plan: Actionable Areas in the Training Plan



Guiding questions:

- What specific and concrete action(s) will you take?
- Did you address the *identified issue*?
- Have you incorporated multiple aspects in your training plan
- What empirical evidence do you have that these actions will be effective in addressing the identified issue?

Integrating EDI in **recruitment**, **hiring**, **and retention processes**.

Integrating diversity & equity in **training, mentoring** and accessing development opportunities.

Fostering an equitable, inclusive and accessible **research environment**.

Building EDI awareness

3. Develop your monitoring and adaptation plan



Guiding questions:

- How will you know if your action plan is working?
- How will you adjust your plan based on your monitoring results?

Indicators and methods might include:

- An **annual audit** of proposed EDI-related actions
- Systems to **track access** to equipment, mentorship and training opportunities
- Anonymous trainee feedback surveys to measure sense of inclusion and/or identify persistent barriers
- Trainee **retention rates** relative to an established baseline

Very Important!

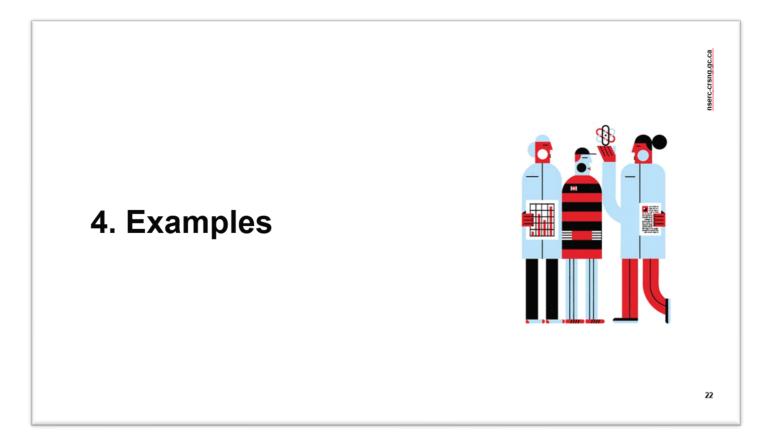
Do not include personal or demographic data for your research team or any of its members, including trainees. Doing so compromises the privacy of those concerned. This information is not requested, required, nor assessed.



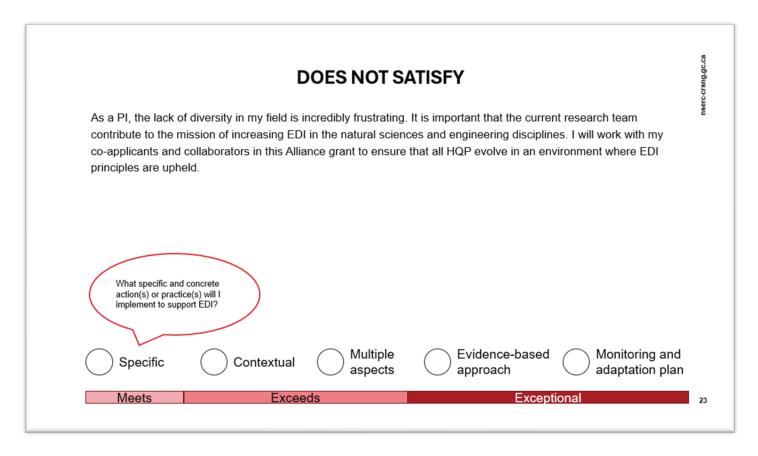
NSERC **does not assess past EDI actions**, but you may describe how previous experience and learning will inform your proposed training plan.

For example, you could reflect on and include responses to the following prompts, as applicable, within the context of your current project:

- What will you continue to do to recruit diverse trainees to your team?
- What practices will you put in place to retain diverse trainees in your team?
- How do your own experiences inform concrete EDI actions, moving forward?



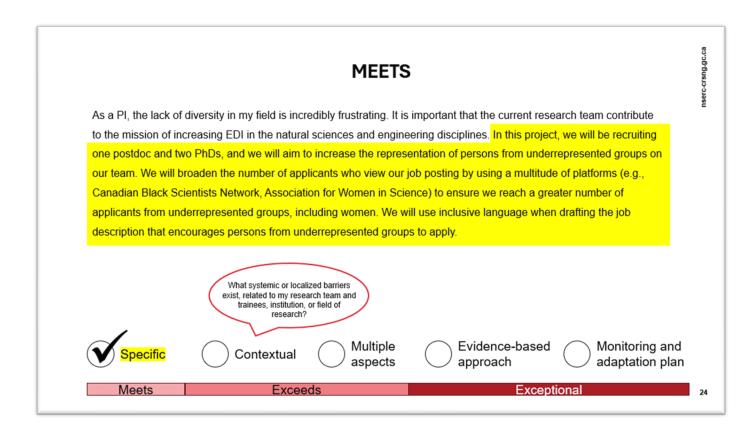
To help you get a better sense of how EDI in the Training Plan is evaluated, let's first walk through some examples together. These are based on real texts that have been modified with permission for training purposes. We'll build up a training plan from a "Does Not Satisfy" rating all the way to a rating of "Exceptional" to show how improvements can be made. And then you'll have a chance to evaluate some training plan statements.



The example provided here would receive a "Does Not Satisfy" rating.

The applicant has the intention of upholding EDI principles, but we don't know what concrete or specific action they will take to support their intention. This response does not check any of the boxes on the merit indicator scale at the bottom of the slide.

To improve this section of the application, the applicant could ask themselves: *What specific and concrete actions or practices will I implement to support EDI?*



Note the highlighted addition. This paragraph would now receive a rating of "Meets."

This response increases in specificity. We see that the PI's plan is to increase the representation of persons from underrepresented groups on their team. They will do this in the trainee recruitment aspect of the training plan. Specifically, they will post their positions on the specified platforms and use inclusive language.

Note that we have a bit of context (the PI's field lacks diversity), but this is still too vague to check the "contextual" box on the merit indicator scale on the bottom of the slide. We need more information about the barriers.

To build on this paragraph toward an Exceeds, the applicant could reflect on, and then describe... what systemic or localized barriers exist, related to their research team and trainees, institution, or field of research?

	EXCE	EDS (1/2)		
It is important to the c	urrent research team to contribute	to the mission of increasi	ng EDI in the nat	ural sciences and
engineering discipline	es. We will focus our efforts on recr	iiting and retaining HQP f	rom underrepres	sented groups,
including women. As	the representation of women in the	fields of chemistry and cl	nemical enginee	ring continues to lag,
one of our goals is to	contribute to Engineers Canada's	arget of reaching 30% re	presentation of w	omen among newly
licensed engineers by	/ 2030. In this project, we will be re	cruiting one postdoc and	two PhDs. We w	ill broaden the number
of applicants who view	w our job posting by using a multitu	de of platforms (e.g., Car	adian Black Scie	entists Network,
Association for Wome	en in Science) to ensure we reach a	greater number of applic	ants from under	represented groups,
including women. We	will use inclusive language when a	rafting the job descriptior	hthat encourage	s persons from
underrepresented gro	oups to apply ()			
,		In I propose actions or practices multiple aspects of the training plan to address these same barriers?)	
Specific			lence-based roach	Monitoring a adaptation p
Meets	Exceeds		Excepti	

The highlighted text aims to provide more context. Now the applicant has identified an EDI challenge and pinpointed where they believe that barriers exist. They explain that there is a lack of diversity – including gender diversity -- in the fields of chemistry and chemical engineering, and that barriers exist in recruitment and retention.

They are now halfway to an "Exceeds." The applicant will still need to *propose actions or practices in multiple aspects of the training plan to address the barriers they have identified*. Remember that they have already proposed actions in the recruitment aspect of their plan.

	EXCEEDS	S (2/2)
() Responsibilities v	vill be transparently assigned, and opportunit	ties will be transparently shared in regular meetings with
project partners, foste	ering participation from all group members. A	Il newly recruited HQP, regardless of gender, will be
matched with a mento	or in the project (senior PhD student or postd	loc). They will also be encouraged to take on leadership
roles, including leadin	<mark>ig progress presentations.</mark> We will design tea	am building activities that enable the participation of
everyone and foster a	in environment that promotes our team diver	sity. Flexible work schedules and inclusive events (e.g., in
accessible settings, a	Icohol-free, during work hours, cognizant of	dietary needs) will promote inclusion and contribute to
overall well-being We		
overall well-beilig. vve	e will establish a policy that outlines the expe	ectations for enabling a safe and respectful environment fo
0		ctations for enabling a safe and respectful environment fo results and objectives, we will ensure to use language tha
all participants. During		
all participants. During	g group meetings when discussing research	
all participants. During	g group meetings when discussing research	results and objectives, we will ensure to use language that What empirical or scholastic evidence supports the effectiveness of my proposed
all participants. During	g group meetings when discussing research	results and objectives, we will ensure to use language that What empirical or scholastic evidence supports the effectiveness of my proposed actions or practices?

Here the applicant adds actions in two other aspects of the training plan, to address barriers to retention. They have described actions to increase access to training and development opportunities, such as transparency, mentorship, and leadership – and they connect these actions to the identified issue of increasing gender diversity. This is important for achieving the next rating level.

They also described practices to enhance the inclusion of all trainees in the research environment, like flexible work schedules and inclusive events, among others. These practices ultimately address their EDI challenge of increasing the representation of persons from underrepresented groups on their team.

Now, this EDI in the training plan section would be given an "Exceeds" rating. To build toward an "Exceptional" rating, the applicant could reflect and respond to the question, *what empirical or scholastic evidence supports the effectiveness of my proposed actions or practices*?

	EX	(CEPTIONA	L (1/2)	
and use a blind rec		not involve personal	information from the ap	errepresented groups to apply plications. A blind recruitment ups who are invited for an
team is composed ounderrepresented in	of a diverse group of gende	rs and races, and w	e will select mentors the	ostdoc). Our current research t will best support entors with whom they identify
²⁴ Atkins, K. <i>et al.</i> "Looki	ent Pilot Project — Final report (Pu ng at Myself in the Future": how m STEM Education 7 (2020). https://d	entoring shapes scientific	identity for STEM students fr	om underrepresented groups.
		Multiple	Evidence-b	what is my strategy to monitor progress and adapt my plan, as necessary? Assed Monitoring a adaptation p
	J	 aspects 	approach	

The highlighted portions of this slide contain evidence in support of the effectiveness of proposed actions or practices. Here, they have based their actions on practices that can be backed up empirically.

To achieve an "Exceptional" rating, the applicant would also need to *describe their strategy to monitor progress and adapt their plan, as necessary.*

Monitoring progress: We will assess our recruitment effort by collecting data about the ways in which applicants heard about the opportunity in our lab. If it does not appear representative of platforms and avenues we used, we will revisit our communication plan with the EDI team at the university to improve it. We will monitor our retention efforts by requesting anonymous feedback from all participants. Non-demographic indicators of success such as contributions to research reports and presentations, time on equipment, # of conferences offered, opportunities to present, scientific articles, and
overall well-being will be collected and used to update and adapt our proposed approach. If, for example, students report unequitable time on equipment, we will brainstorm together to identify barriers and rethink our approach.

In the final highlighted addition, we see that a monitoring and adaptation plan is in place. They have described how they will know if their action plan is working, and they have provided an example of how they might adjust their plan based on their monitoring results. These can be traced back to their EDI challenge: increasing diversity in the fields of chemistry and chemical engineering by addressing barriers in recruitment and retention.

Now that we've built the section on EDI in the Training plan together from the ground up, let's look at some examples and reflect on what rating we should give them.

STEM and forest ecolo			JLD YOU GIVE? er disciplines in the retention c	of HOP
from underrepresented and members of the 2Si the research world or ev working on adapting my	groups. While recruitment LGBTQI+ community, stror ven science is not for them strategies to favour the re	at the MSc and PhD ng candidates are los after successfully co tention of candidates	level tends to be relatively stro t during the training process, w mpleting their degrees. Conse from underrepresented comm n all horizons receive the spec	ng, particularly for women vith many declaring that quently, I have been unities. My practices are
inclusive and supportive experience poverty, we personally follow up with	e lab culture, and work life l will set stipends at a level	balance. Because stu that ensures no traine ing my different activi	announcement text places an idents from underrepresented be is beneath the poverty line f ties (teaching, conferences, co genous communities.	groups are more likely to or our region. I also
	epted, I individually accom I ensure that the desired p		er to ensure that all candidates for each HQP.	have the conditions
Specific	Contextual	Multiple	Evidence-based	Monitoring and adaptation pla
		aspects	Approach	Adaptation

What rating would you give? The example reads, "STEM, and forest ecology in particular, disappointingly trails behind other disciplines in the retention of HQP from underrepresented groups. While recruitment at the MSc and PhD level tends to be relatively strong, particularly for women and members of the 2SLGBTQI+ community, strong candidates are lost during the training process, with many declaring that the research world or even science is not for them after successfully completing their degrees. Consequently, I have been working on adapting my strategies to favour the retention of candidates from underrepresented communities. My practices are meant to reduce filters at the application stage and ensure students from all horizons receive the specific support they need and to thrive.

First, HQP positions are announced broadly on multiple platforms. The announcement text places an emphasis on an inclusive and supportive lab culture, and work life balance. Because students from underrepresented groups are more likely to experience poverty, we will set stipends at a level that ensures no trainee is beneath the poverty line for our region. I also personally follow up with potential HQP I meet during my different activities (teaching, conferences, committees), and I work with my research partners to identify potential candidates, particularly in Indigenous communities.

Once a student has accepted, I individually accompany students in order to ensure that all candidates have the conditions necessary for success. I ensure that the desired pronouns are adopted for each HQP."

	EXCEED	DS	
from underrepresented g and members of the 2SL the research world or eve working on adapting my	y in particular, disappointingly trails behind oth proups. While recruitment at the MSc and PhD GBTQI+ community, strong candidates are los en science is not for them after successfully co strategies to favour the retention of candidates t the application stage and ensure students fro	level tends to be relatively stron at during the training process, wi impleting their degrees. Conseq as from underrepresented commu	g, particularly for women th many declaring that uently, I have been <u>unities</u> . My practices are
inclusive and supportive experience poverty, we v personally follow up with	announced broadly on multiple platforms. The lab culture, and work life balance. Because stu vill set stipends at a level that ensures no train potential HQP I meet during my different activ identify potential candidates, particularly in Ind	udents from underrepresented g ee is beneath the poverty line fo ities (teaching, conferences, cor	roups are more likely to or our region. I also
inclusive and supportive experience poverty, we v personally follow up with my research partners to Once a student has acce	lab culture, and work life balance. Because stu vill set stipends at a level that ensures no train potential HQP I meet during my different activ	udents from underrepresented g ee is beneath the poverty line fo ities (teaching, conferences, con igenous communities. er to ensure that all candidates	roups are more likely to or our region. I also mmittees), and I work with
inclusive and supportive experience poverty, we v personally follow up with my research partners to Once a student has acce	lab culture, and work life balance. Because stu vill set stipends at a level that ensures no train potential HQP I meet during my different activ identify potential candidates, particularly in Ind epted, I individually accompany students in ord	udents from underrepresented g ee is beneath the poverty line fo ities (teaching, conferences, con igenous communities. er to ensure that all candidates	roups are more likely to or our region. I also mmittees), and I work with

This EDI in the Training Plan section would receive a rating of "Exceeds." The applicant has presented the context [highlighted in purple]: recruitment and retention of HQP from underrepresented groups is one challenge in this field. They aim to reduce filters at the application stage, and to create the specific supports needed for students to thrive once onboarded.

The applicant discusses specific strategies to address these challenges across more than one aspect of the training plan [highlighted in blue]. Firstly, in the recruitment stage, they have addressed a potential barrier in stipend levels, for example. Then, they describe practices to create an inclusive research environment like ensuring that correct pronouns are used for each HQP.

They do not cite evidence for their approaches, and do not include a monitoring and adaptation plan.

	2. WHAT I	RATING WO	JLD YOU GIVE?	1
Women and Gender completed module ensure that our pra	er Equality Canada about (s on Unconscious Bias and	Gender-based violend d research ethics. I pa	nment for my trainees. I hav e and Gender-based Analy articipate in several working esearch findings in EDI. I ha	sis Plus. I have also groups at the university to
0,			excellence ¹¹ . My efforts in re . We benefit from the multite	ecruitment and retention ude of perspectives that are
¹¹ Gender diversity leads	s to better science (Wullum Niels	en et al. 2017)		
Specific	Contextual	Multiple aspects	Evidence-base approach	ed O Monitoring and adaptation pla
Meets	Excee	she	Exc	eptional

Here's another example. What rating would you give?

The example reads,

"I am strongly committed to EDI and to creating an inclusive environment for my trainees. I have taken courses through Women and Gender Equality Canada about Gender-based violence and Gender-based Analysis Plus. I have also completed modules on Unconscious Bias and research ethics. I participate in several working groups at the university to ensure that our practices and policies align with the most current research findings in EDI. I have even been recognized for contributions to EDI in the workplace.

I highly value a diverse team as it fosters innovation and research excellence¹¹. My efforts in recruitment and retention have resulted in a diverse team of students that I am very proud of. We benefit from the multitude of perspectives that are shared daily.

¹¹Gender diversity leads to better science (Wullum Nielsen et al. 2017)"

	C	DOES NOT S	ATISFY	
Women and Gend completed module ensure that our pra	er Equality Canada about s on Unconscious Bias an	Gender-based violend d research ethics. I pa	nment for my trainees. I have ce and Gender-based Analysi articipate in several working g esearch findings in EDI. I hav	s Plus. I have also roups at the university to
0,			excellence ¹¹ . My efforts in rec f. We benefit from the multitud	
¹¹ Gender diversity lead	s to better science (Wullum Niels	en et al. 2017)		
Specific	Contextual	Multiple aspects	Evidence-based approach	Monitoring and adaptation plan
Meets	Excee	, da		otional

This EDI in the Training Plan section would receive a rating of "Does Not Satisfy".

Remember that it is not sufficient to just describe your past actions - you need to frame them within the context of your new project. Within this example, the applicant talks about the courses they've taken, but not how they are applying that knowledge.

The applicant provided a reference to back up their statement about the strengths of a diverse team but remember: the evidence needed is in support of the specific actions they are taking to meet an EDI challenge.

Let's try one more.

tours for female hig especially importan	h school students and end t for research as <i>Diaz-Ga</i>	couraging the younger rcia et al. determined	actively working to change to generation to consider STE that incorporating women in searchers and radical innova	M careers. This is research led to a
terminology is gend background and rou	ler inclusive. An inclusive ute to the university. In te	climate will be fostere	rdinators in my department, d by presentations from team earch execution practices, th ing to use a particular piece	n members about their ne team will use a booking
such as contribution be collected and us we will ensure that	ns to research reports and ed to update and adapt o	I presentations, scient ur proposed approach	n participants. Non-demograp ific articles, skill acquisition, a . If, for example, students rep ntal health resources and che	and overall well-being will port poor mental health,
Specific	Contextual	Multiple aspects	Evidence-based approach	d OMonitoring and adaptation plar

What rating would you give? The example reads:

"The mining industry is traditionally dominated by men, and the PI is actively working to change that by offering laboratory tours for female high school students and encouraging the younger generation to consider 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 innovation³⁷.

For recruitment, the postings will be sent out through the co-op coordinators in my department, ensuring that the terminology is gender inclusive. An inclusive climate will be fostered by presentations from team members about their background and route to the university. In terms of transparent research execution practices, the team will use a booking schedule to ensure fairness and predictability for all members wanting to use a particular piece of equipment.

We will monitor our efforts by requesting anonymous feedback from participants. Non-demographic indicators of success such as contributions to research reports and presentations, scientific articles, skill acquisition, and overall well-being will be collected and used to update and adapt our proposed approach. If, for example, students report poor mental health, we will ensure that they know where to find and how to access mental health resources and check in with them individually to see how best to support them."

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We will monitor our	r efforts by requesting anonymous feedback from participants. Non-demographic indicators of succe
be collected and us we will ensure that	ns to research reports and presentations, scientific articles, skill acquisition, and overall well-being w sed to update and adapt our proposed approach. If, for example, students report poor mental health, they know where to find and how to access mental health resources and check in with them how best to support them.

This EDI in the Training Plan section would receive a rating of "Exceeds." Let's see why.

In this example, the applicant provides the context that the mining industry is traditionally dominated by men [highlighted in purple]. Their EDI challenge, then, is to increase gender diversity.

They provide one specific action to do that [highlighted in yellow]: sending out job postings with genderinclusive terminology. This is an action in the recruitment aspect of the training plan.

Keeping with that same thread, let's check for an evidence-based approach to address this EDI challenge. The applicant provides evidence for the importance of incorporating women in research, but what needs to be included for an "Exceptional" rating is evidence to support the actions they are taking to address their EDI challenge. Here, they needed to cite evidence that using gender-inclusive terminology in their postings will help increase the number of gender-diverse candidates who apply. That was not done.

There is an acceptable monitoring and adaptation plan in place [highlighted in orange] that could help them assess whether they are meeting the EDI challenge. To strengthen this plan, they might consider retention rate among the indicators.

Finally, they present actions they will take in another aspect of the training plan [highlighted in blue]: fostering an inclusive research environment.

Note that they also provide a second action that seems like it could be in support of a more diverse mining industry: they will offer laboratory tours for female high school students. Unfortunately, since high school students are not likely to be trainees in the current project, this action is not in the context of the training plan. However, this action could be adapted and built into the plan, with a little more thought. For example, if the trainees participated in these visits, it could increase their awareness of barriers to gender-diversity in the industry. This could lead to a more inclusive research and training environment, ultimately supporting the EDI challenge.

Remember: For a rating of "Exceptional" for the EDI in the training plan section, there should be at least one thread that ties your identified EDI challenge or issue through to your monitoring and adaptation plan.

In sum, you should:

- define the EDI challenge and context
- describe at least one concrete and specific action as it relates to the challenge
- cite evidence in support of your action, and
- define your monitoring and response plan

...all as it relates to your EDI challenge and context.

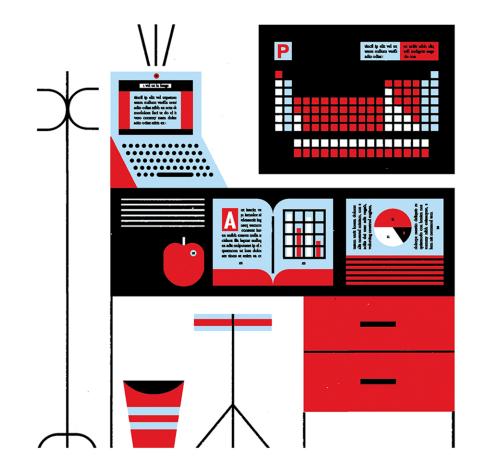
Summary

Revisiting Learning Objectives



You should now understand:

- why NSERC is asking you to consider EDI in the research team
- where to address EDI your project proposal
- how EDI will be evaluated in your training plan
- how to write a strong EDI statement in the training plan



Questions?

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Connect with us



@nserc_crsng



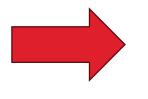
facebook.com/nserccanada

5. Resources



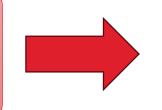
Additional considerations for EDI in the proposal

Sub-criterion 3.2 - Consideration of EDI in your training plan



Assessed by NSERC staff using established Alliance grants merit indicators

Remaining sub-criteria (e.g. 2.1, 2.2)



Evaluated through internal or external review, according to the published merit assessment mechanism

Resources:

- Consult the <u>Alliance Advantage grants Merit Indicators</u> for a full list of sub-criterion
- Refer to the <u>NSERC guide on integrating equity</u>, <u>diversity and inclusion considerations in</u> <u>research</u> for guidance on how to consider EDI in planning of research at each stage of the research process.