

Making Equity, Diversity, and Inclusion matter in Research

Developed and delivered by:
Rachael E. Sullivan, PhD
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Hello!

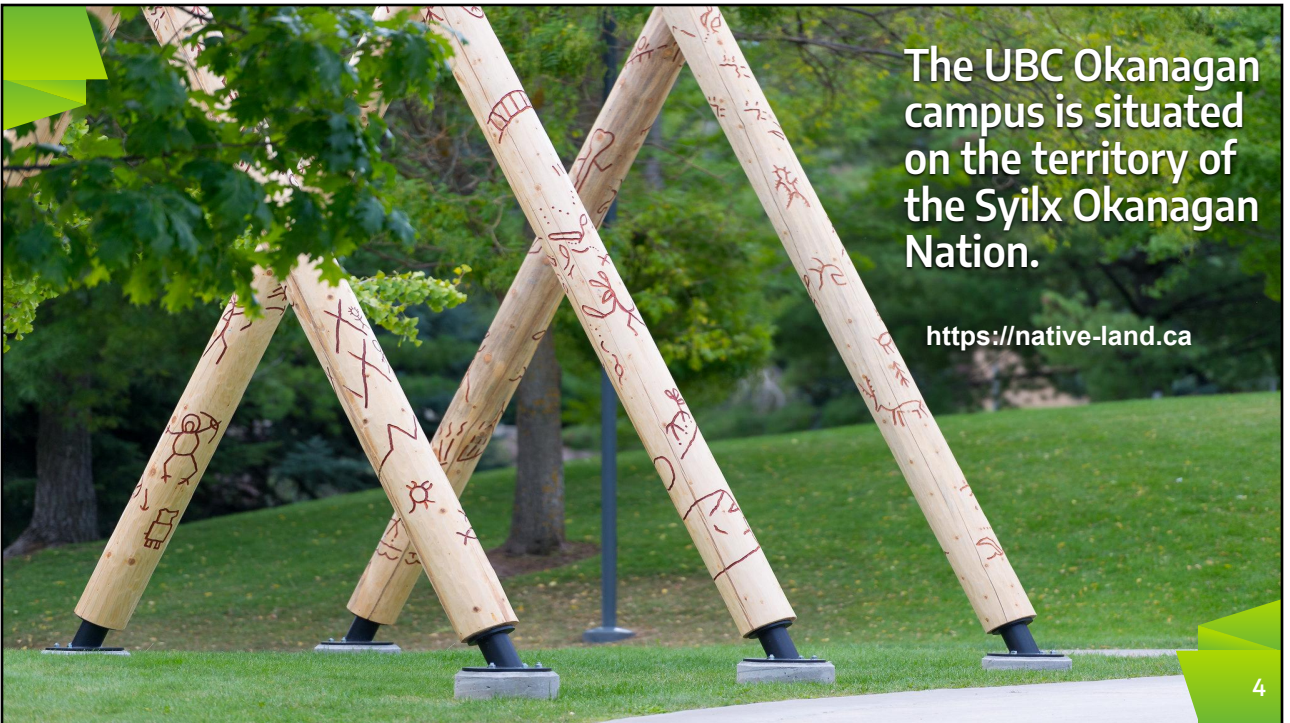


Rachael E. Sullivan PhD
Equity Facilitator
Equity & Inclusion Office
2014-Present

- PhD in Sociology
- Qualitative Methods
- Equity issues & conflict
- My identity dimensions



UBC Point Grey campus is situated on the *traditional, ancestral* and *unceded* territory of the of the xwmə0-kwəy'əm (Musqueam) people



The UBC Okanagan campus is situated on the territory of the Syilx Okanagan Nation.

<https://native-land.ca>

Overview of the Session - A Primer

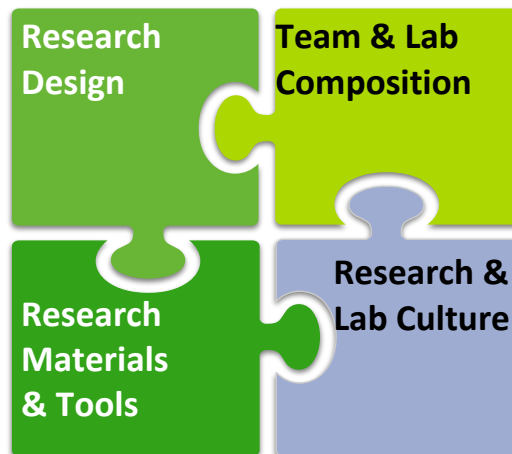
- ▷ What is Equity, Diversity & Inclusion (EDI)?
- ▷ Why is EDI important in research?
- ▷ EDI through the research process
 - . Research Design
 - . Research Materials & Tools
 - . Research Team & Lab Composition
 - . Research Team & Lab Culture
- ▷ Review & Closing

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Research as an Interlocking Process

“By analyzing gender and sex in **all stages of the research process**, from the initial considerations of problem choice to the development of methodological design and data analysis, **scientists may add important new dimensions to research**”

(Nielsen, M. W et al. 2017)



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What is Equity, Diversity & Inclusion ?

Let's start with definitions & examples

Equity, Diversity & Inclusion at UBC

Equity:

refers to achieving parity in policy, process and outcomes.

It also considers *power, access, opportunities, treatment, impacts,* and *outcomes* in three ways:

- Representational equity
- Resource equity
- Equity-mindedness

Diversity:

refers to the lived experiences and perspectives of people that may include race, ethnicity, colour, ancestry, place of origin, political belief, religion, marital status, family status, physical disability, mental disability, sex, gender identity or expression, sexual orientation, age, class, and/or socio-economic situations.

Inclusion:

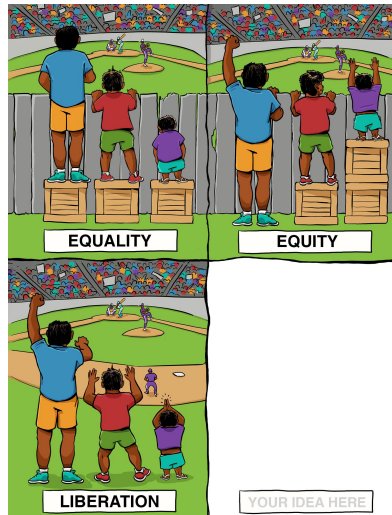
an active, intentional, and continuous process to:

- Address inequities in power and privilege
- Build a respectful and diverse community that ensures welcoming spaces
- Opportunities to flourish for all.

Equity, Diversity & Inclusion

Equity:

It requires the identification and elimination of barriers that prevent the full participation of some groups.



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Equity, Diversity & Inclusion

Diversity:

Representational diversity in addition to diversity in education, expertise and lived experiences is fundamental to achieving research and training excellence.

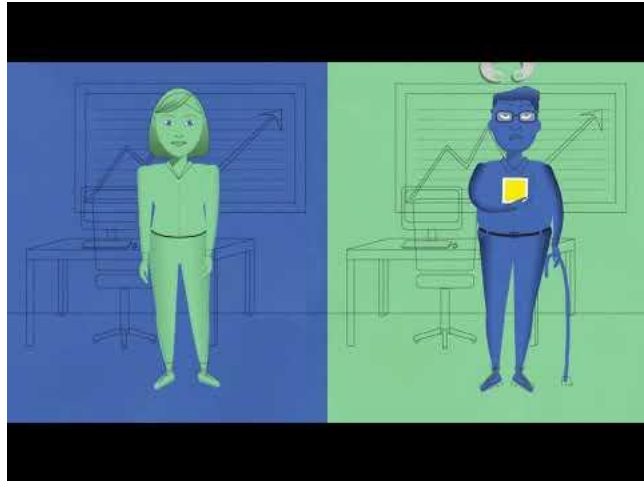


Image: Diversity Wheel from http://web.jhu.edu/dlc/resources/diversity_wheel/

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Intersectionality

- ▶ An approach used by researchers to better understand and address the multiple barriers and disadvantages that individuals face with intersecting social identities, such as race, gender, sexuality and class.



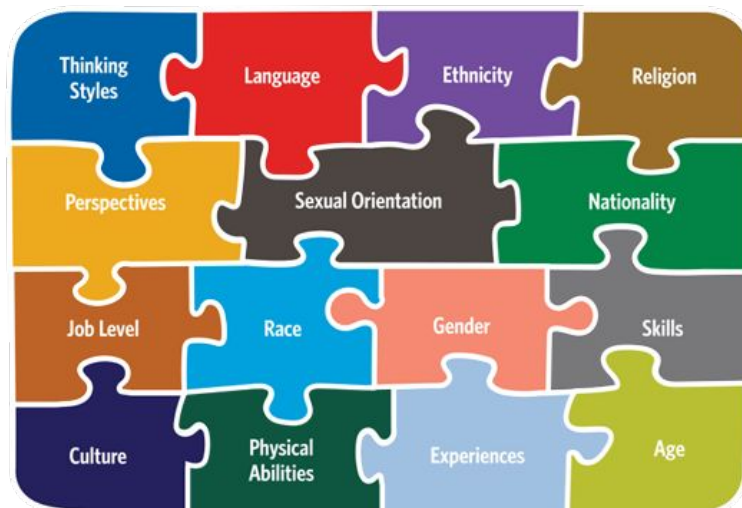
<https://www.annualreviews.org/shot-of-science/story/indispensable-work-understanding-intersectionality>

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Equity, Diversity & Inclusion

Inclusion:

Ensuring that all team members are integrated and supported is fundamental to achieving research and training excellence.



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Equity & Inclusion Office

About ▾ How We Can Help ▾ Resources ▾ Get Involved ▾ Workshops & Events ▾ News ▾ UBC Okanagan

Home / Resources

About ▾

How We Can Help ▾

Resources ▾

Activating Inclusion Toolkit ▾

Policies & Reports ▾

Academic Programs and Research ▾

Days of Significance ▾

Gender Diversity ▾

Accessible and Inclusive Event Planning ▾

Responsibility of Managers and Administrative Heads ▾

Resources for Respectful Debate ▾

Equity Enhancement Fund ▾

Equity & Inclusion Scholars Program ▾

- Activating Inclusion Toolkit
- Policies & Reports
- Academic Programs and Research
- Days of Significance
- Gender Diversity
- Accessible and Inclusive Event Planning
- Responsibility of Managers and Administrative Heads
- Resources for Respectful Debate
- Equity Enhancement Fund
- Equity & Inclusion Scholars Program
- Equipment Accommodation Fund
- Positive Space Campaign
- Media Library
- For UBC Students
- For UBC Faculty
- For UBC Staff
- For Community Members
- Equity Considerations in Virtual Interviews
- Equity & Inclusion Glossary of Terms
- Communication Guidelines & Resources

and resources available to the UBC

Inclusion Office at any time to make an appointment, and are invited to a confidential, safe and welcoming environment to clarify their situation and if specific to trans inclusion or gender diversity, please [contact us](#) to connect.

related to UBC [students](#), [faculty](#), and [staff](#). For resources applicable to all, please see below.

Individuals who identify as part of the

source providing information, education and intervention services for individuals who identify as part of the UBC, for faculty, staff and students. We provide information, education and facilitation on equity, diversity, human rights and respectful environment. We do not formally investigate complaints nor do we have disciplinary authority, but we may help with informally and impartially resolving concerns (e.g. through mediation or other means) where possible and appropriate. We support and collaborate with Faculties/Schools, Departments and other agencies at the University by providing expertise related to equity, diversity, human rights, and respectful environment to create and maintain healthy, respectful, welcoming environments. We can also provide information on available formal complaint options and procedures in a safe, confidential setting and are an "open door" throughout that process.

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Why Equity, Diversity & Inclusion (EDI)?

Benefits and barriers of EDI in research

Why Equity, Diversity, & Inclusion?

→ Academic training & Mentorship

- ◆ Individuals from underrepresented groups are most likely to leave STEM fields at two particular checkpoints: graduating with an undergraduate STEM degree and the postdoc to faculty transition (Meyers et al., 2018)

→ Research Design:

- ◆ 8 of 10 drugs withdrawn from the United States market between 1997 and 2000 posed “greater health risks for women than for men” (U.S. General Accounting Office (GAO) (2001) Drug Safety: Most Drugs Withdrawn in Recent Years Had Greater Health Risks for Women (Government Publishing Office, Washington, DC7u)

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Why Equity, Diversity, & Inclusion?

→ Research Labs & Teams

- ◆ A 2018 report published by the Canadian Association of University Teachers (CAUT), [*Underrepresented and Underpaid: Diversity & Equity Among Canada's Postsecondary Education Teachers*](#), highlights the persistent lack of diversity in the academic workforce and wage gaps between men and women, and between white, Indigenous and racialized staff.

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Why Equity, Diversity, & Inclusion?

→ Collaboration:

- ◆ Joshi (2014) found that across 60 interdisciplinary teams of more than 500, women more often than men accurately recognize the expertise of fellow team members and they are more likely to emphasize educational qualifications when evaluating expertise, whereas men tend to be distracted by irrelevant cues, such as gender.

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Why Equity, Diversity, & Inclusion?

→ Innovation & Problem Solving:

- ◆ Over 600 participants were placed into same- and mixed-gender groups and asked to solve basic and complex problems (Woolley et al. 2010)
- ◆ These researchers found that the 'collective intelligence' factor of mixed-gender groups was a better predictor of group performance than the IQ of individual group members. Moreover, neither all-men nor all-women teams were the most effective in problem solving.

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Why Equity, Diversity, & Inclusion?

→ Productivity:

- ◆ Research has shown that more diverse **research labs are more productive** than those that are homogeneous (AlShebli et al., 2018)
- ◆ Research suggests that publications produced by **gender-diverse groups appear to be higher quality** because they tend to receive more citations from their peers, (Campbell et al. 2013)

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Let's review some concepts

Equity

achieving parity in policy, process and outcomes for historically and/or currently underrepresented and/or marginalized people.

Intersectionality

used by researchers to better understand and address the multiple barriers and disadvantages that individuals with intersecting social identities, such as race, gender, sexuality and class, face.

Diversity

refers to the lived experiences and perspectives of people including all of the identities they hold and perspectives they bring to a group and/or field.

Inclusion

an active, intentional, and continuous process to address inequities in power and privilege, and build a respectful and diverse community.

On to Part 2...

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Making Equity, Diversity, and Inclusion matter in Research

PART 2!

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How EDI matters in the Analytical Process

How to bring EDI into research development

Starting with GBA+



What is GBA+ ?

- ▷ is an analytical process
- ▷ using critical questions and engagement
- ▷ determines how diverse groups of women, men and non-binary people may experience research outcomes (policies, programs & initiatives)
- ▷ ‘+’ going beyond gender

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Central questions to consider for GBA+

1. Do I believe that the issues I work on are *gender neutral*? Or *culturally neutral*? *Ability neutral*? Is this based solely on my own experience?
2. Is it possible that *my assumptions prevent me* from asking questions and hearing or understanding answers that are outside my own experience?
3. How might *attitudes and norms* – my own, those of my organization, and those of the institutions and society that surround me – limit the range of policy options I consider and propose?

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GBA+ Framework – Key Lessons Learned

- ▶ **No single element of GBA+ is enough**; all are necessary to achieve sustainability.
- ▶ To be effective, a GBA+ Framework needs to incorporate an accountability structure (e.g., a GBA+ Champion in senior management, an intra-departmental working group) to promote accountability and visibility.
- ▶ The responsibility and use of GBA+ needs to extend across the entire organization (e.g., from the senior managers to the subject-matter experts) to ensure researchers are working to embed EDI in all facets of their work.

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How EDI matters in the Research Process

Design & Data to Team Development



Research
Design

Research
Materials &
Tools

EDI in Research: A Framework

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EDI in Research Design

Parts of Research Design:

- ▷ Research Questions
- ▷ Population & Recruitment
 - ▶ Indigenous peoples
 - ▶ Insider/Outsider
- ▷ Methodology
- ▷ Data Collection & Testing
- ▷ Deliverables

Assumptions:

- ▷ Western/colonial bias in STEM disciplines
- ▷ Research area(s)
- ▷ Bias in questions asked
- ▷ Power differential with research population

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EDI in Research Design

Impact:

- ▷ Limited results
- ▷ Missing populations
- ▷ Misalignment between methods used and population or data sets

Antidotes

- ▷ Incorporate diverse 'worldviews' to ensure the results and deliverables meet a greater/broader need
- ▷ Diverse literature/research
- ▷ Draw on diverse research networks and clusters

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Indigenous knowledge & statistical modeling



NMFS Permit No. 20466

© Rowenna Gryba

Rowenna Gryba, PhD Candidate -

“Before conducting the interviews we talked with representatives of the communities about the project to make sure they supported our approach. We also developed consent letters for the hunters that we interviewed to ensure they understand the project and know that ***we view the information they share with us as theirs, not ours.*** We note they will be added as authors to any papers, if they want. We also made trips back to the communities to review how I interpret the information they shared so they can correct me if needed, and will do trips to share the final results”.

- <https://medium.com/@bcscience/stats-66080540930>

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“

“While there are research projects in which [diversity,...] may not be relevant in terms of the research content, it is well established that, where relevant, not integrating [diversity,...] into the design, implementation, evaluation and dissemination of the research can lead to poor results and missed opportunities”

~ https://www.nserc-crsng.gc.ca/doc/EDI/Guide_for_Applicants_EN.pdf

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EDI in Research Materials & Tools

Parts of Research Design:

- ▷ Research Materials
 - ▶ Tests & Instruments
 - ▶ Equipment
- ▷ Data Collection & Testing
- ▷ Deliverables

Assumptions:

- ▷ Alignment between methods used & research questions
- ▷ Research Tools are exempt from EDI analysis
- ▷ Everyone has the same access to tools, equipment and lab time

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EDI in Research Design

Impact:

- ▷ Misalignment between methods used and population or data sets
- ▷ Research tools can potentially be exclusionary to those who this work is trying to benefit

Antidotes

- ▷ Review **access** to tools, equipment, instruments and data collection methods using EDI & GBA+ lenses
- ▷ Utilize diverse research networks to review their use of tools and materials in different contexts

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Connecting the disparate - while staying grounded



UBC Okanagan students in discussion - [UBC Okanagan](#)

Margo Seltzer, PhD - UBC Computer Science

“We have this image of a hacker in a dark room eating Cheetos. However, the reality is that computer science is highly collaborative, and that collaboration propels both people and ideas. [...] Chamber musicians communicate without a leader. They’ve come up with ways to teach that. Meanwhile, in computer science we ask people to do group work but we don’t have a formal way to teach them how to do it. We could learn from them.”

- <https://medium.com/ubcscience/seltzer-7979b533dc92>

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Research
Team & Lab
Composition

Research
& Lab
Culture

EDI in Research: A Framework

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“

“Systemic change eludes many Canadian universities because the affinity bias, homosocial culture, and embedded practices that give rise to the production of professorial and administrative replicas have been regularized”

-from *The Equity Myth* (Smith et al. 2017, Ch11, p.292)

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EDI in Research Teams & Lab Composition

Research Teams & Labs:

- ▷ Demographics
 - ▶ Identities
 - ▶ Education
 - ▶ Expertise
 - ▶ Lived experience
- ▷ Hiring practices
- ▷ Onboarding & expectations

Assumptions:

- ▷ All researchers will have the same access to resources, training, and experiences
- ▷ Biases & stereotypes
- ▷ Same or similar schedules

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EDI in Research Teams & Lab Composition

Impact:

- ▷ Lack of diverse thought, perspective, and problem solving
- ▷ Limits the impact of research findings

Antidotes

- ▷ Utilizing EDI in hiring:
 - ▶ Development of JD's
 - ▶ Selection & Interviews
 - ▶ Decision making

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EDI in Research Teams & Lab Culture

Teams & Lab Culture:

- ▷ Mentorship & Promotion
- ▷ Training & Professional Development
- ▷ Communication
- ▷ Accommodations
 - ▷ Disability
 - ▷ Schedules
 - ▷ Celebrations

Assumptions:

- ▷ All supervisors treat research trainees the same (lack of bias in team/lab)
- ▷ Mental health is not a concern among researchers by either supervisors or trainees
- ▷ Same or similar schedules

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EDI in Research Teams & Lab Culture

Impact:

- ▷ Serious disruptions to lab dynamics and research productivity if supervisors do not recognize and respect the inherent differences among their trainees (i.e., religion, race, gender, sexuality differences, etc.)
- ▷ Ignoring mental health concerns can be detrimental to wellbeing of researchers and research productivity

Antidotes

- ▷ Begin each research team introductions with an overview into what EDI is, how to mitigate bias
- ▷ Create a process for engaging in conflict and microaggressions
- ▷ Establish clear work/life boundaries to increase wellbeing

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Finding Strength in Numbers



Malabika Pramanik's office. Photo: Paul Joseph.

Mentorship is a crucial part of STEM retention efforts, especially for women, Indigenous youth and recent immigrants

“The goal is to create, with help from all communities, a sustainable framework where young people can view themselves as a part of a supportive and inclusive environment that celebrates their diverse strengths, where they do not feel isolated,” says Pramanik. “And one day they can pay it forward with their own mentorship.”

<https://medium.com/@malabika/science/strengthinnumbers-25d7fe2598fe>

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Diversity

refers to the lived experiences and perspectives of people including all of the identities they hold and perspectives they bring to a group and/or field.

EDI Research Design

From the questions asked to the GBA+ process to ensure that all aspects of research design are considered, explored and revised based on new and EDI informed perspectives.

Inclusion

an active, intentional, and continuous process to address inequities in power and privilege, and build a respectful and diverse community.

Research Team/Lab Culture

Like all workplaces, team/lab composition and culture is impacted by utilizing EDI in hiring, training & development, and open communication to ensure team members are welcomed and included.

Thanks!

For any questions?

Equity & Inclusion Office

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Equity, Diversity & Inclusion



Find more maps at slidescarnival.com/extra-free-resources-icons-and-maps

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