

Evidence Quality and Reach Hub: Community of Practice on Developing a Conceptual Framework Centered on DEI

Session 1

January 25, 2023

Virtual Meeting/Conference Recording Notice

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AIR Inclusive Meeting Guidelines

Hosting and Participating in Meetings



ENGAGE EVERYONE



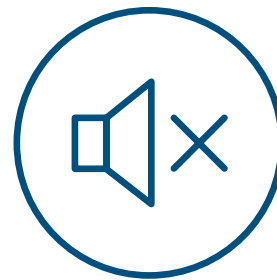
BE HEARD AND SEEN



ACKNOWLEDGE SPEAKER



MAXIMIZE MICROPHONES



MINIMIZE NOISE



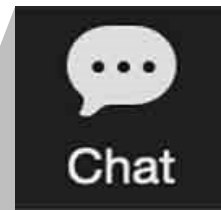
MAXIMIZE VISUAL DISPLAYS

These guidelines are intended to improve the meeting experience for virtual participants, as well as people with hearing loss, visual impairment, and those for whom English is an additional language.

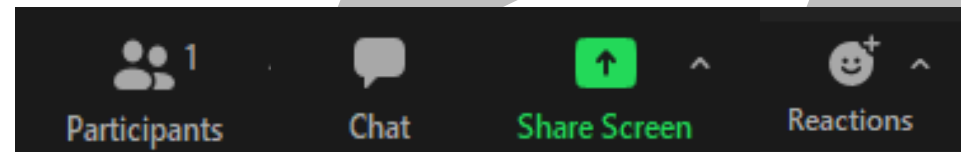
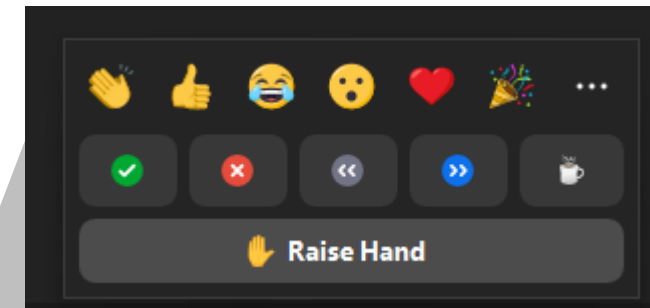
Developed by the Access AIR and AIR CREW Employee Resource Groups With Support From the AIR Diversity and Inclusion Office.

How to Use Zoom

Click on the **Chat icon** to ask questions, share your thoughts and ideas when prompted, and let us know about any technical issues.



Click on **Reactions** to **Raise Hand** to ask a question during Q&A or to use one of the other reaction icons.

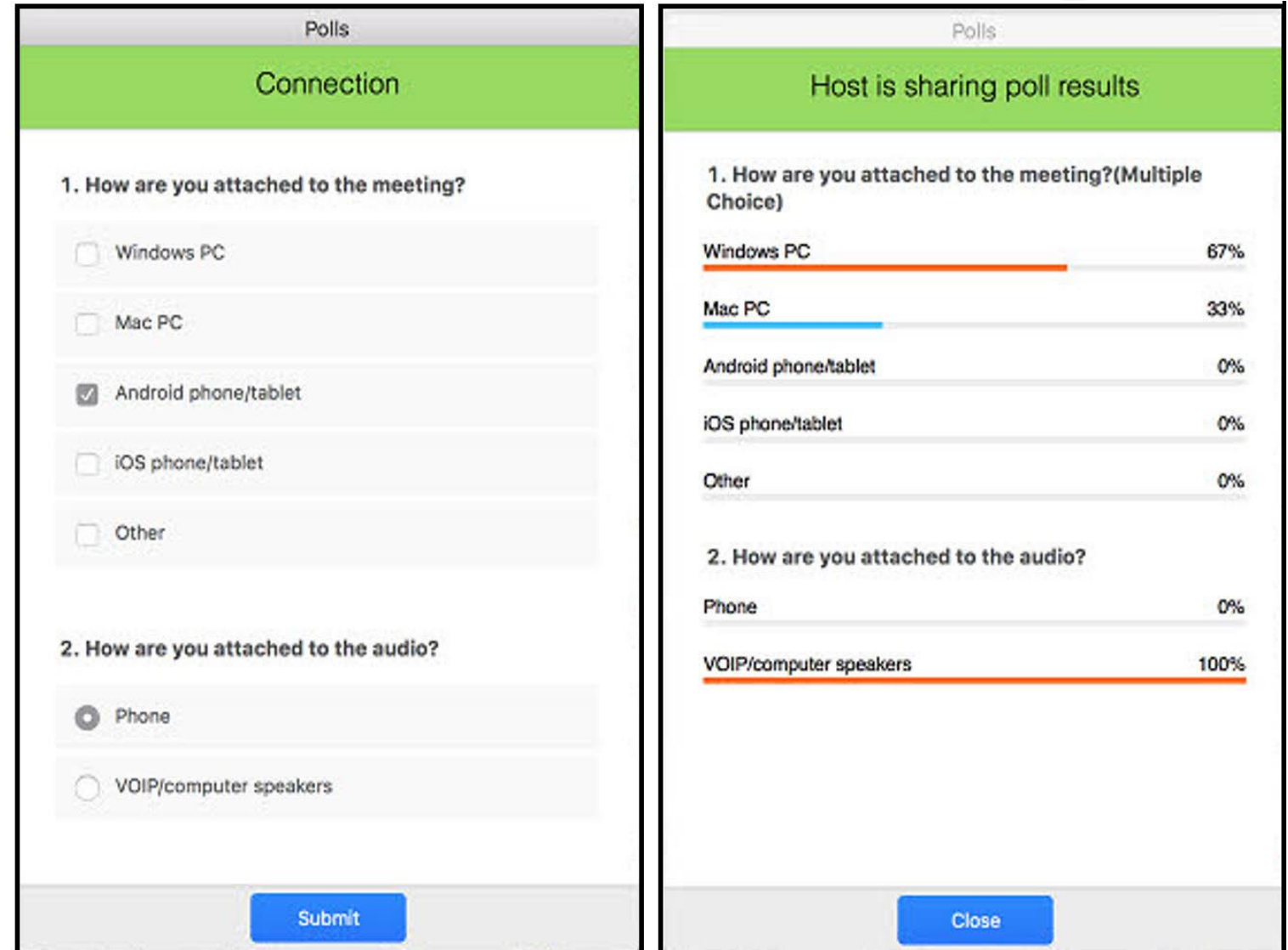


How to Use Zoom

Please participate in **Zoom polls** when prompted.

The poll will appear on your screen. Respond to the question by selecting a response(s). Then click **Submit**.

Results will be shared on screen. Responses are **anonymous**.



Left Screenshot: Connection

1. How are you attached to the meeting?

- ☐ Windows PC
- ☐ Mac PC
- ☒ Android phone/tablet
- ☐ iOS phone/tablet
- ☐ Other

2. How are you attached to the audio?

- ☒ Phone
- ☐ VOIP/computer speakers

Right Screenshot: Host is sharing poll results

1. How are you attached to the meeting?(Multiple Choice)

Response	Percentage
Windows PC	67%
Mac PC	33%
Android phone/tablet	0%
iOS phone/tablet	0%
Other	0%

2. How are you attached to the audio?

Response	Percentage
Phone	0%
VOIP/computer speakers	100%

Introductions

Time: 10 minutes

Instructions:

In your breakout room, please share your name, organization, and location.

As a get-to-know-each-other-better initiative, please also share the languages you speak!



Activity: Zoom Poll

Time: 2 minutes

Instructions:

Please respond to the following Zoom poll questions by selecting a response for each and clicking “Submit”:

1. **What is your level of experience with developing conceptual frameworks?**

● No experience ● Little experience ● Somewhat experienced ● Very experienced

2. **What is your level of experience with integrating diversity, equity, and inclusion (DEI) into a conceptual framework?**

● No experience ● Little experience ● Somewhat experienced ● Very experienced

EQR Hub and Community of Practice Overview

EQR Hub

The Evidence Quality and Reach (EQR) Hub will provide current and aspiring STEM education researchers **targeted learning opportunities regarding research methods, knowledge translation, and DEI**. The hub will develop and implement virtual webinars and workshops for researchers in the Discovery Research PreK-12 (DRK-12) community, convene communities of practice, and engage in individualized consultations with DRK-12 projects.



This work is made possible by the National Science Foundation (NSF) under Grant No. 2101162.

Community of Practice Sessions

Session 1: Learners will build understanding of the fundamentals of conceptual frameworks and definitions of diversity, equity, and inclusion and their importance in research. Activities will reflect on positionality and DEI in your research.

Session 2: Learners will consider strategies for integrating DEI into conceptual frameworks related to research design, methodology, and data collection, review real-life examples of DEI in K-12 STEM research, and consider where DEI fits into the research continuum.

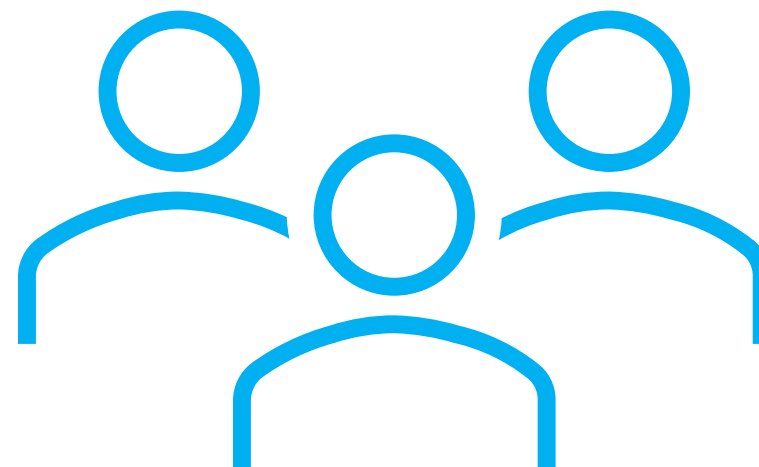
Session 3: Learners will explore strategies to integrate DEI into conceptual frameworks related to data analysis and dissemination and troubleshoot challenges in integrating DEI.

Community of Practice Process and Expectations

During the live sessions, learners will receive direct instruction from experts and participate in breakout activities and group discussions.

Between sessions, learners will engage in peer learning through asynchronous discussions.

Learners are expected to **attend all sessions.**



Session 1 Agenda

1. Introduction to the EQR Hub
2. Developing a Conceptual Framework Centered on DEI
 - a. What is *Diversity? Equity? Inclusion?*
 - b. Why DEI in research?
 - c. Why is DEI important in research?
 - d. What is a conceptual framework?
 - e. Reflection on positionality and DEI in your research
3. Next Steps

Meet the Presenters



Marissa Spang, MEd

*American Institutes for Research
Indigenous Education Researcher*



Paula Dias, PhD

*American Institutes for Research
Senior Researcher*



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*American Institutes for Research
Researcher*

Developing a Conceptual Framework Centered on DEI

Varsha Ranjit

Session Objectives

- Define DEI.
- Recognize the importance of DEI in conducting research and the implications of not attending to DEI in research.
- Identify the main elements of conceptual frameworks.
- Understand how one's positionality affects research.

Working Assumptions



You are important to this process.



Everyone has wisdom; **we need your voice!**



Assume positive intent. **This is a safe space of mutual learning.** It is also a continual process.



These may be sensitive topics—patience and empathy are important.

Norms



Active listening and engagement.
Participate and share your ideas!



Questions or comments? Use the raise hand feature.



Cameras: Encouraged!



Audio: Mute and unmute. Be mindful of background noise.

Defining DEI

Marissa Spang

What Is Diversity?

Diversity is conceptualized as

- (1) differences and similarities that define us as human beings and
- (2) unique life and community experiences that can include gender, class, age, race, sexual orientation, ethnicity, gender identity, religion, disability status, veteran status, and diversity of thought and approach.

The broad interpretation of diversity accounts for each individual's unique life and community experiences, including diversity in thought and approach.

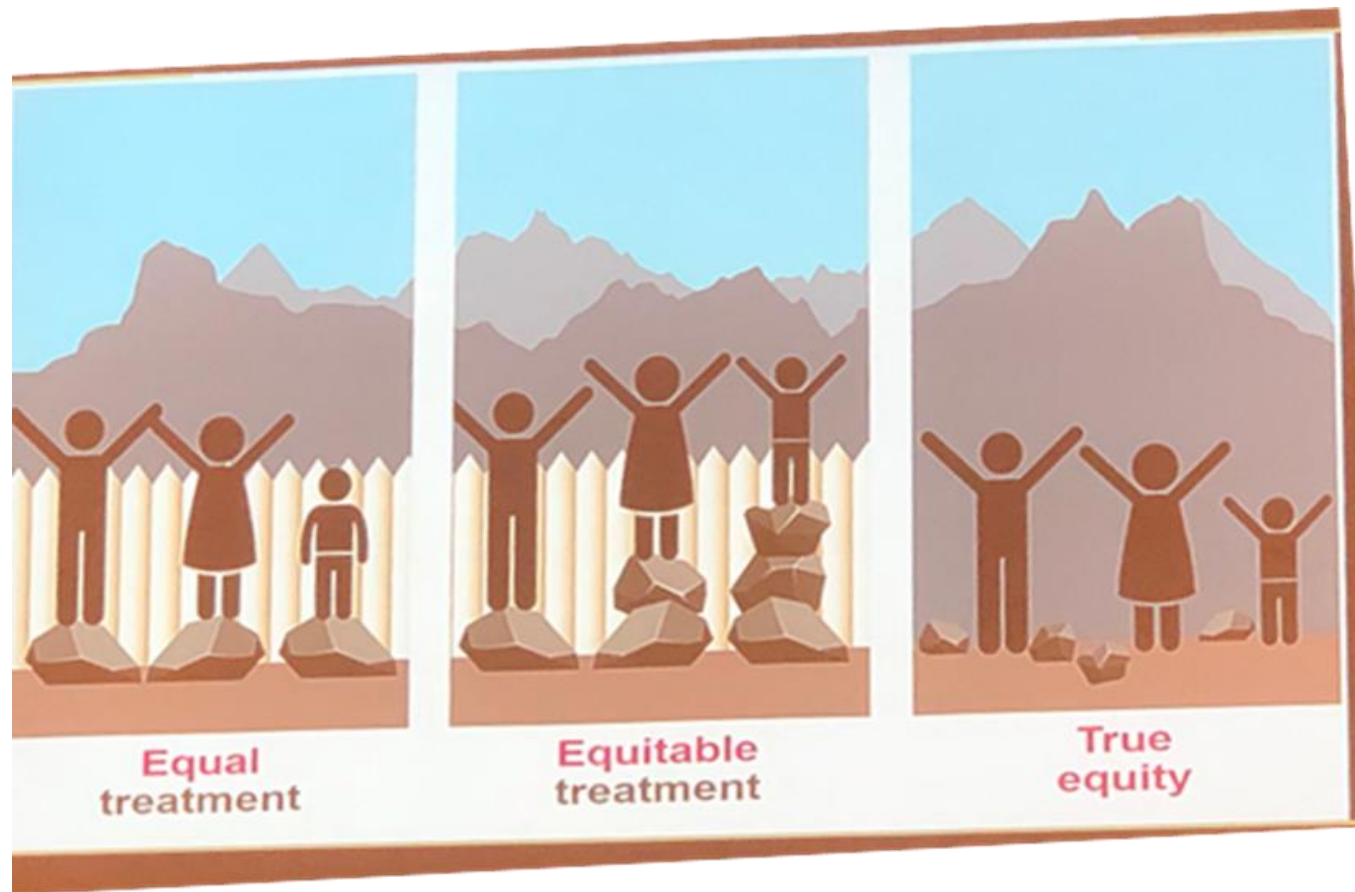


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What Is Equity?

Equity is about fairness; it ensures that each person gets what they need to thrive.

It is about taking deliberate actions to remove barriers and obstacles that hinder overall well-being; it is about having policies, practices, and procedures that are informed by cultural and linguistic competence to promote and facilitate positive outcomes for all.



Source: Adapted from presentation, WHAT WORKS: Advancing Gender Equity, by Siri Chilazi, Women and Public Policy Program, Harvard Kennedy School. RPE Recipients Meeting, Atlanta, GA, July 26, 2019.

What Is Inclusion?

Inclusion is conceptualized as

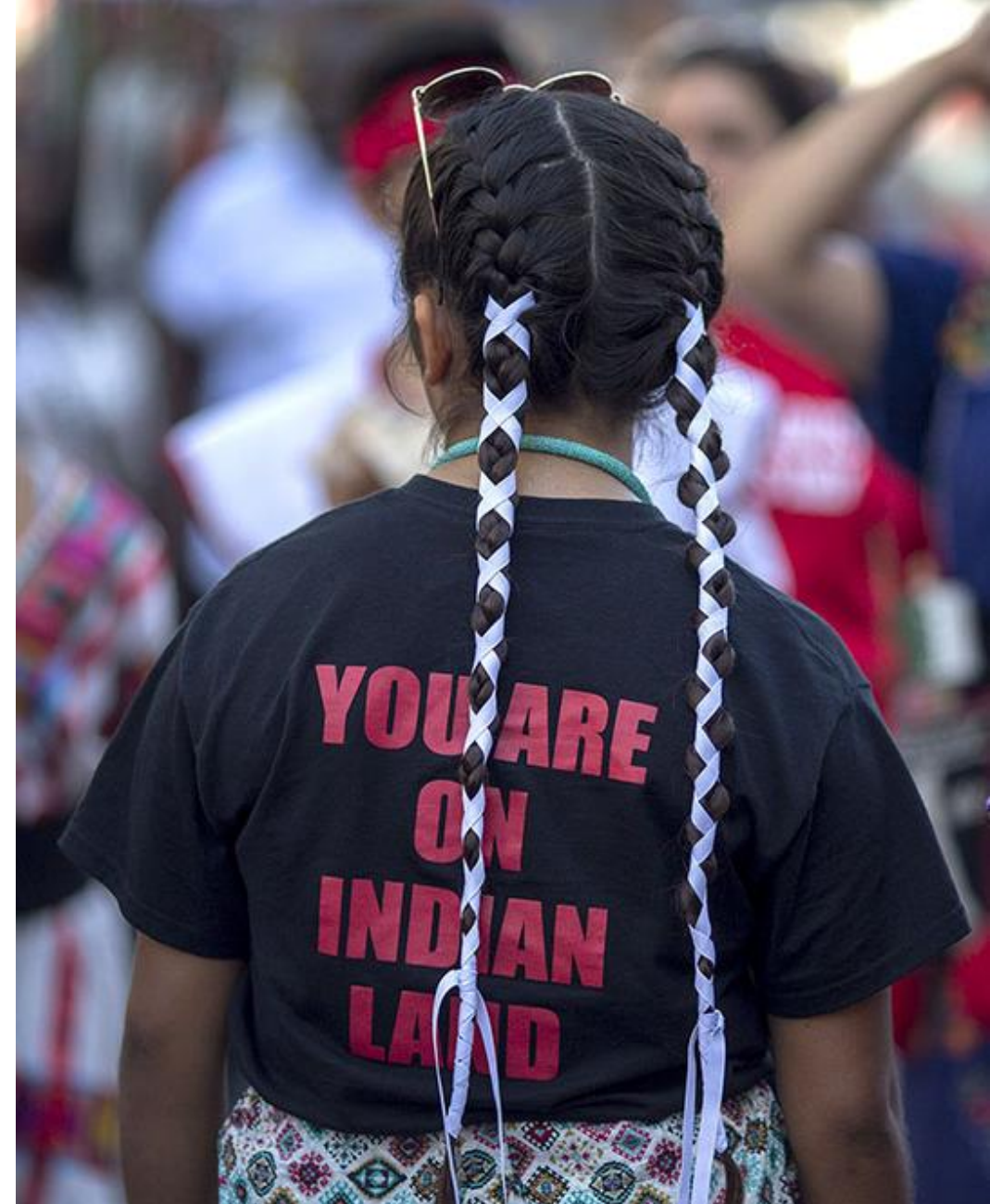
- an environment (example: learning, work) that benefits from an individual's (example: student's or staff member's) diversity of ideas, knowledge, and experiences and
- a culture that engages everyone and seeks equitable contributions from and opportunities for all.



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What Is Indigenous Sovereignty?

- In Indigenous communities, dominant inclusion = assimilation and erasure
- Thus, at stake is upholding Indigenous sovereignty.
- **Sovereignty** is the intrinsic, legal, social, and cultural autonomy to govern their own citizenry and lands/territories, including the education of their children.
- Resources: STEM Practice Briefs [10](#) and [11](#)



Why DEI in Research?

Marissa Spang

Paula Dias

Why Is DEI Relevant to Research?

Diversity helps ensure:

- **ALL** are *active* participants in research (researchers, practitioners, and community members).
- **The impact of the research is felt more deeply**, is more meaningful by the very communities or populations with whom you are working with.
- **Stronger** research—because it diversifies the inquiry, research questions, and analysis.

“When disagreement comes from a socially different person, we are prompted to work harder. Diversity jolts us into cognitive action in ways that homogeneity simply does not. For this reason, diversity appears to lead to higher-quality scientific research.”
(Bang, Lee, & Medin, 2014)

Why Is DEI Relevant to Research?

Equity helps ensure:

- **Power dynamics** are recognized and addressed.
- **Collaborative and appropriate engagement** is present in study design, implementation, and dissemination.
- **The view of what is** considered ‘credible evidence’ is broad.
- **Equitable and meaningful opportunities** for all youth to learn STEM.

*“Moving toward **equity** will occur as we create learning environments that connect in deep ways to the life experiences of all students. Fundamental to this perspective is the view that in the end, equity is not about offering or producing sameness, but about enabling youth to appropriate the repertoires they need in order to live the richest life possible and reach their full academic potential”*
(Nasir et al., 2005, p. 499).

Why Is DEI Relevant to Research?

Inclusion helps ensure:

- **Community values**, strengths, and priorities inform the overall research design, implementation, and results.
- **Youth are recognized** for their diverse STEM repertoires and ways of knowing and are positioned to demonstrate STEM competency in a multitude of ways.
- **Adequate analysis** and interpretation of results.

“Design learning experiences to grow out of the lives of learners. Broaden ‘what counts’ as science and engineering in your teaching. The ‘scientific method’ view of science is mistaken. Youth often engage in sense-making in out-of-school time in ways that relate to science. Communities routinely develop systematic knowledge about the natural world in relation to their interests and values.”

(Bell & Bang, 2015)

Source: Culturally and Linguistically Appropriate Standards for Projects, Research, and Operations (CLAS PRO; AIR, 2017).

Why Is DEI Relevant to Research?

Indigenous sovereignty helps ensure:

- **Indigenous youth are not** further assimilated into the dominant culture.
- **Indigenous youth's knowledges**, rights, and responsibilities are valued and upheld.
- **Meaningful and transformative STEM** learning and experiences for Indigenous youth and their communities.

“STEM learning for Indigenous students should involve offering them learning and knowing that is land- and place-based, centers (not erases or undermines) their ways of knowing and builds connections between Indigenous and Western STEM. It also involves creating STEM learning that is relevant to their everyday lives and their interdependent roles and responsibilities that they have to their families and communities, now and in the future.”

(Spang and Bang, 2014)

Questions

What Is Culture?

The languages, customs, beliefs, rules, arts, knowledge, and collective identities and memories developed by members of all social groups that make their social environments meaningful.

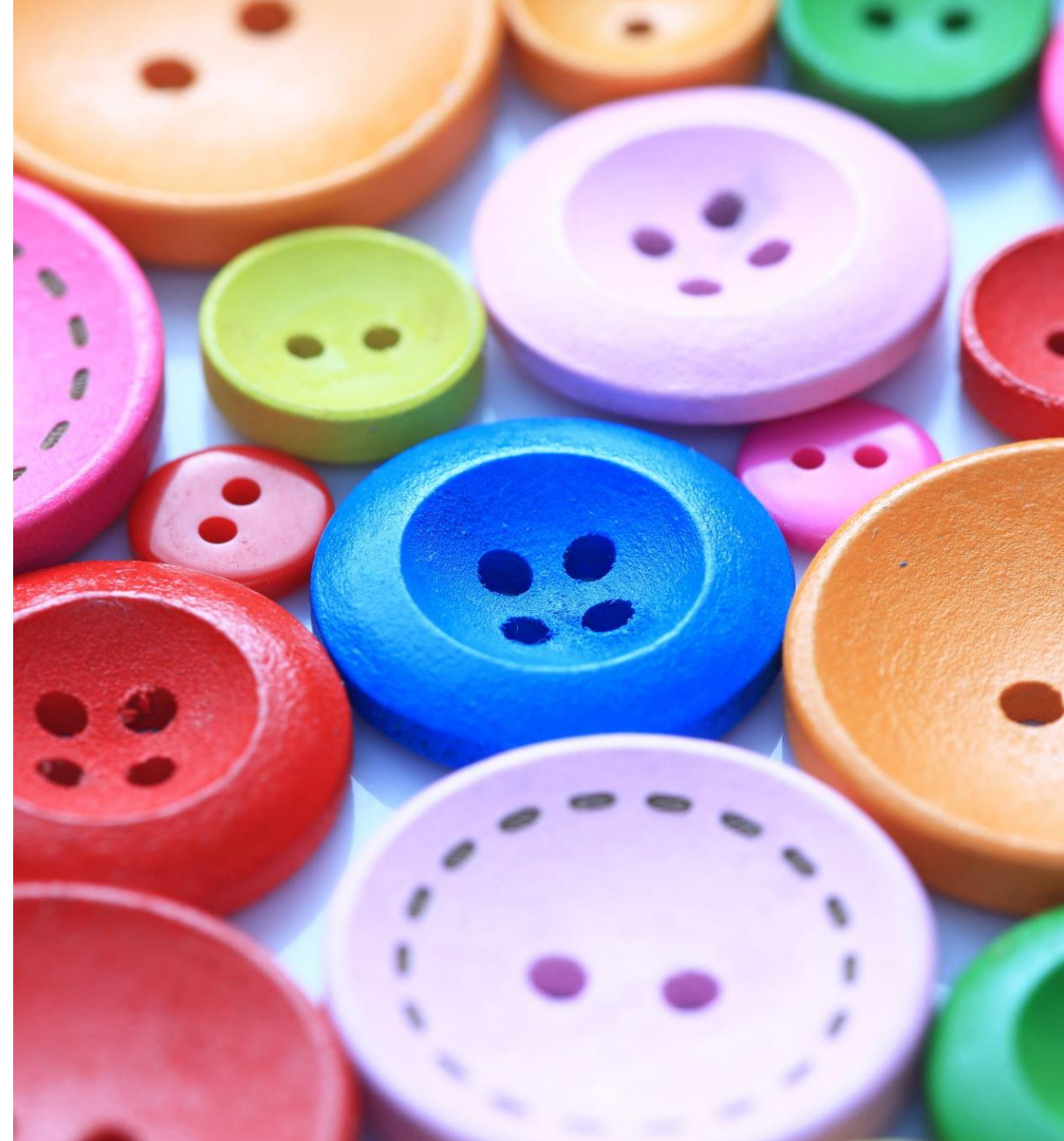
Source: American Sociological Association



What Is Cultural Competence?

- **Cultural competence** is a set of congruent behaviors, attitudes, and policies that foster improved effectiveness in cross-cultural situations.
- It is a process of learning, unlearning and relearning (behavior, thinking, and practices).
- Cultural competence requires awareness of self, reflection on one's own cultural position, awareness of others' positions, and the ability to interact genuinely and respectfully with others.

Source: Cross et al., 1989; Isaacs & Benjamin, 1991



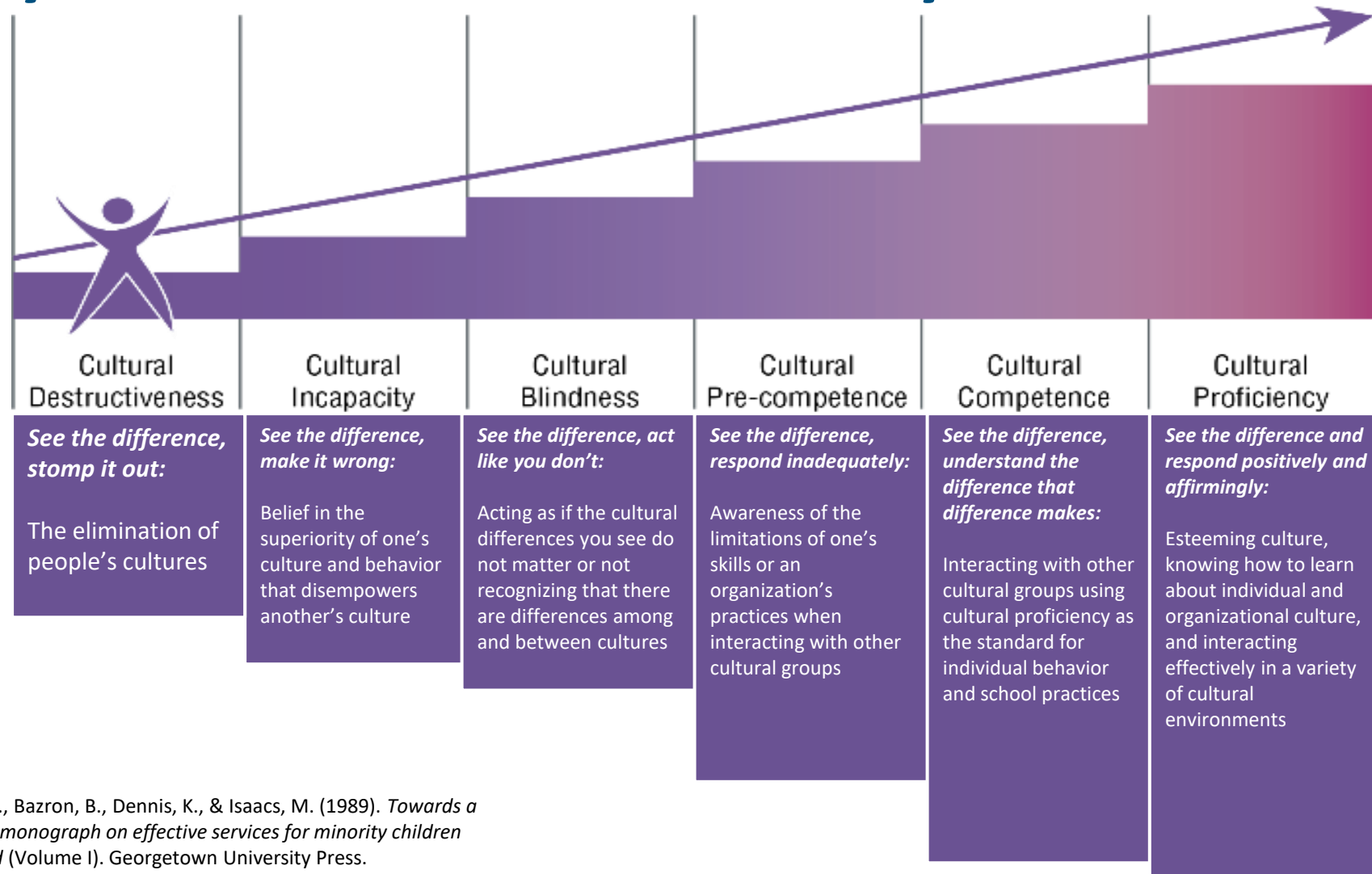
What Is Linguistic Competence?

Linguistic competence is defined as “the capacity . . . to communicate effectively and convey information in a manner that is easily understood by diverse audiences including persons of limited English proficiency, those who have low literacy skills or are not literate and individuals with disabilities.”

Source: Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (2009 revised), National Center for Cultural Competence.



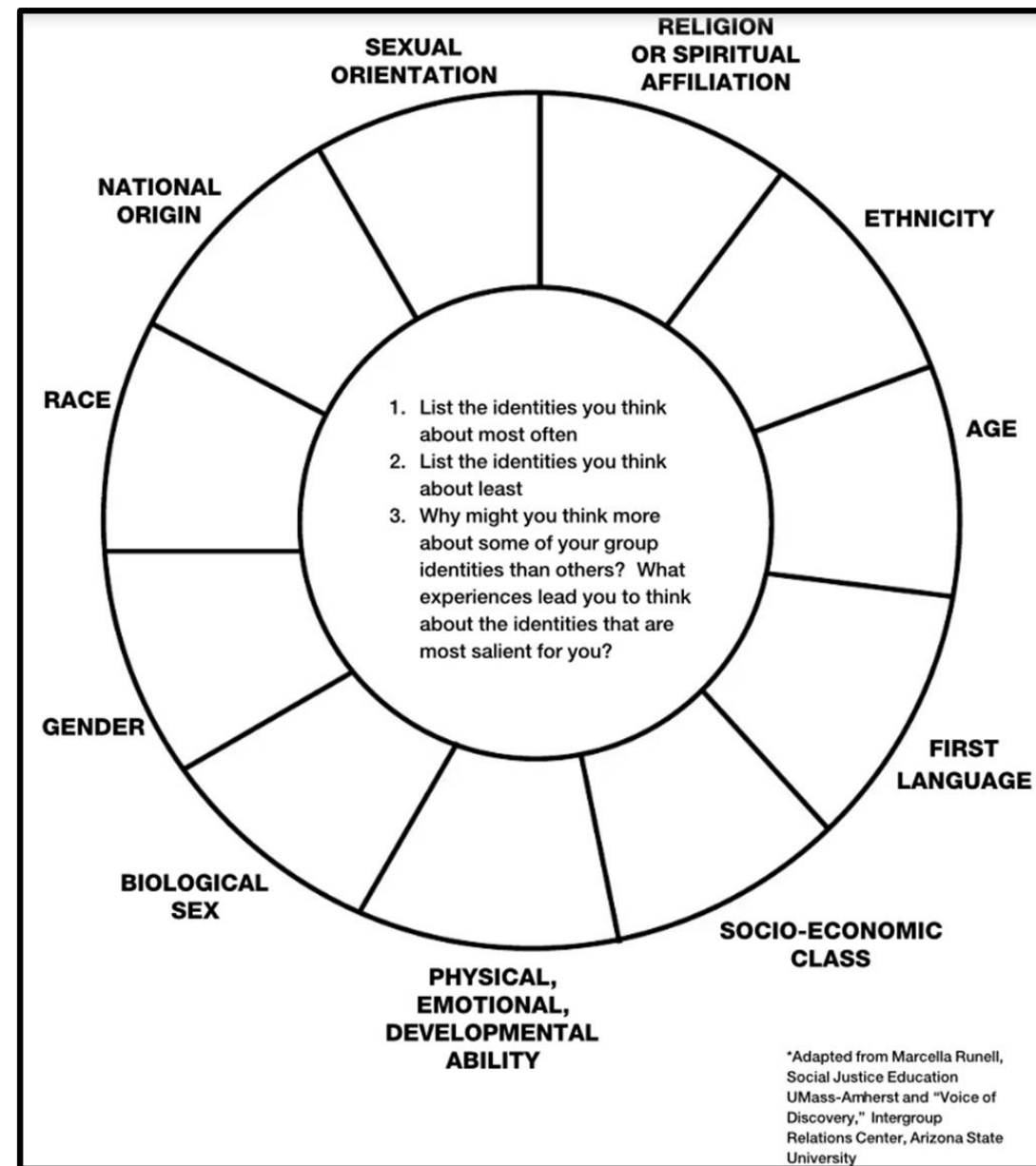
The Journey Toward Cultural Proficiency



Source: Graphic adapted from Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (1989). *Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed* (Volume I). Georgetown University Press.

What Is Positionality?

- The stance or positioning of an individual in relation to the broader context, involving critical reflection on how power hierarchies and identities (e.g., race, age, gender, education level, socio-economic status, geography) might shape an individual's perspective.
- Reflecting on positionality helps researchers be conscious of their biases, values, and experiences, and how these affect research.



Activity: DEI Research Contexts and Debrief

Time: 5 minutes for activity, 5 minutes for debrief

Instructions:

1. Use the JamBoard link provided in the chat to answer the following question:

In your research context, how do you conceptualize and/or attend to DEI in the work you do?

Note: Definitions of DEI are provided on Slide 2 in the Jamboard for your reference.

Examples:

Think about the communities, agencies, and individuals you are working with, and answer the following:

- *What are the languages or dialects of the communities of focus? How is the project making this accessible?*
- *Who is collecting the data and what is their relationship to the communities of focus in the project?*
- *How is decision making shared in the research project?*

2. Participate in the debrief; please share some of your answers.

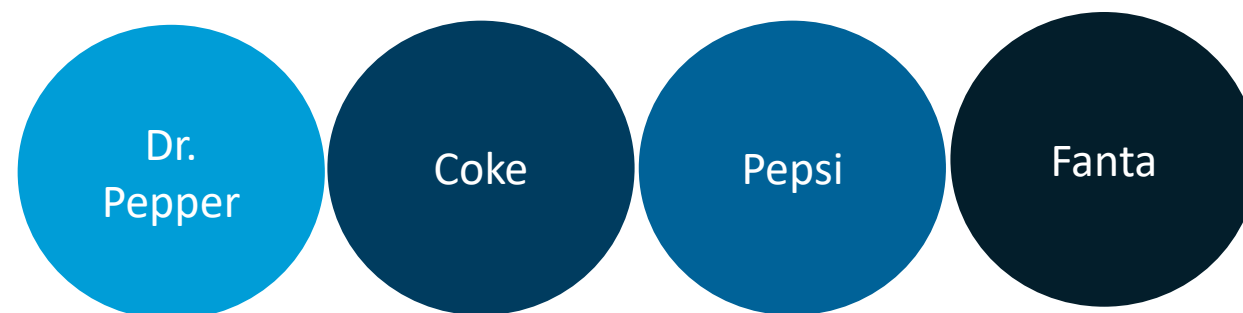


Conceptual Frameworks

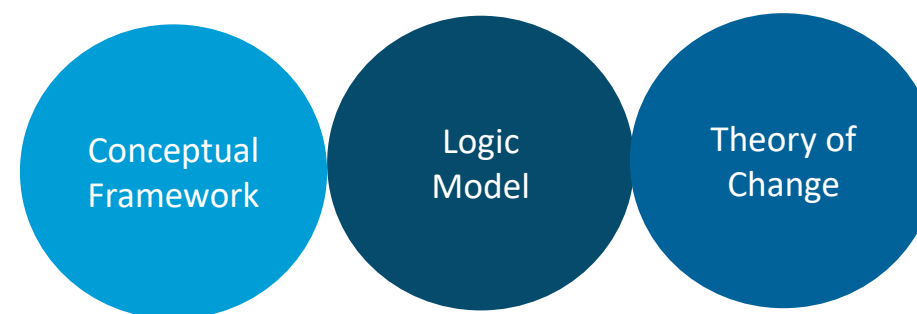
Varsha Ranjit

Which Terminology to Use?

- One *single term* is also used to describe *different* concepts.
 - Is it a conceptual framework?
 - Or is it a logic model?
 - Or is it a theory of change?
- What is a conceptual framework?



There are differences between these concepts or things, but they often get clubbed under one umbrella term. Example: “Soda”

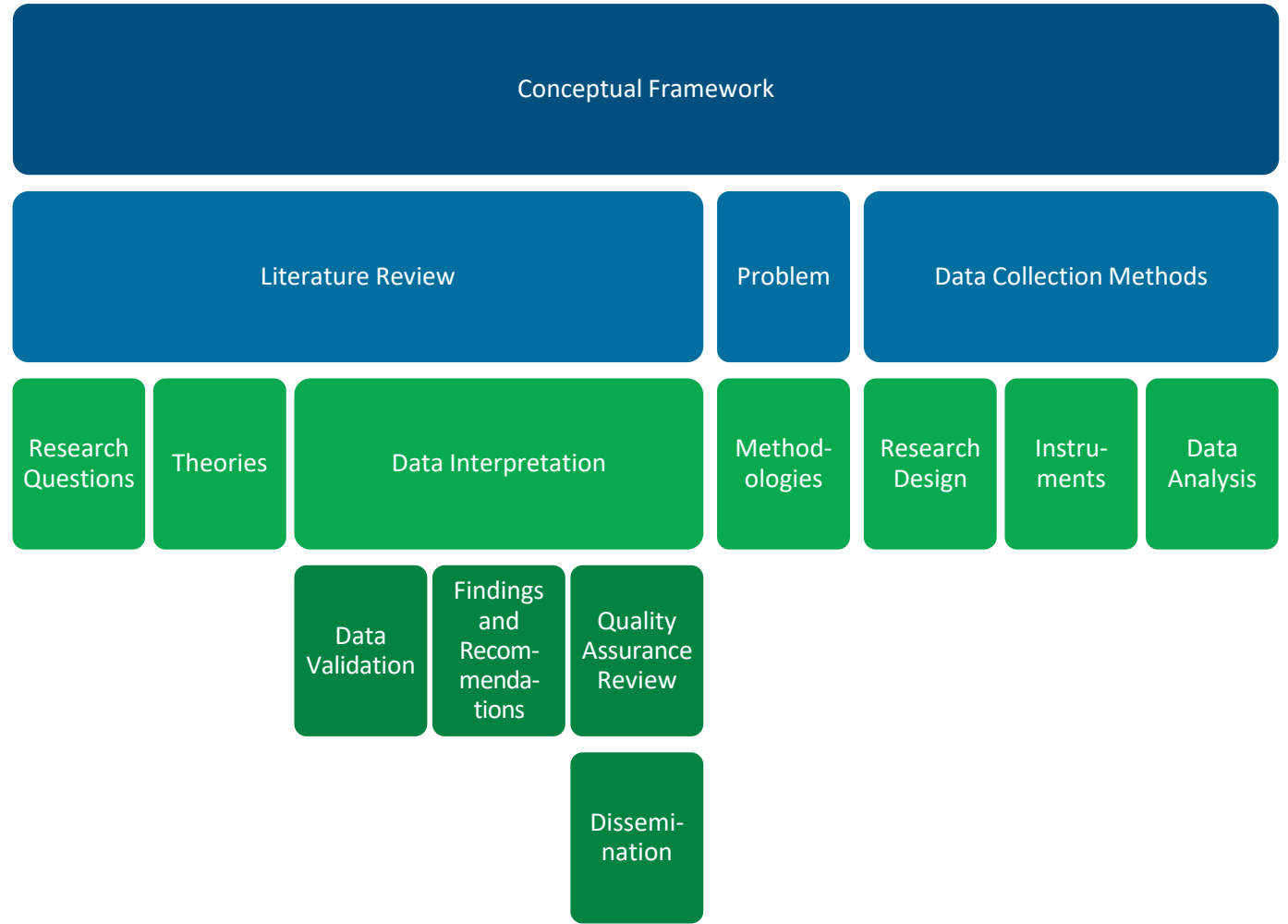


Logic Model	Theory of Change	Conceptual Framework
A logical sequence showing what the intervention's intended outcomes are	Includes causal mechanisms to show why each intervention component is expected to result in the intended outcomes Includes contextual factors and assumptions	The total, logical orientation and associations of anything and everything that forms the underlying thinking, structures, plans, and practices and implementation of your entire research project
If we provide X, the result will be Y. Inputs > Outcomes	If we provide X, A will support or hinder - a result of Y. Inputs > Activities > Outputs > Outcomes	If we provide X, A will support or hinder - a result of Y. But what about before and after? We need to have "a", "b", "c" components of research and think about who, how, and when (in addition to what and why).
Descriptive	Explanatory	Narrative + Descriptive + Explanatory
WHAT	WHY	WHO, WHAT, WHY, HOW, WHEN

Conceptual Framework:
All parts of research

What Is a Conceptual Framework?

- A conceptual framework is the entire research plan.
- It includes all components of research.
- Depending on the type of research project, the conceptual framework can include all or some components of a research plan.



What Is a Conceptual Framework?

Ravitch and Riggan (2017) dedicated a book to conceptual framework. Their main point is that a conceptual framework is an argument for the study.

- (a) Includes the importance of and intended audience for the study
- (b) Demonstrates alignment among research questions + data collection + data analysis, as well as the use of rigorous procedures to conduct the study

Meeting NSF's Expectations

- What are NSF reviewers expected to consider?
 - (a) **What** the proposers want to do
 - (b) **Why** they want to do it
 - (c) **How** they plan to do it
 - (d) **How** they will know if they succeed
 - (e) **What** benefits could accrue if the project is successful

NSF reviewers evaluate proposals against two criteria:

- (1) **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge
- (2) **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

Activity: Zoom Poll

Time: 2 minutes

Instructions:

Please respond to the following Zoom poll question by selecting a response and clicking “Submit”:

Do you have access to a conceptual framework you have developed for your current or past topic of research that you can use for activities in this session?

(a) Yes

(b) No



Breakout Groups: Positionality and DEI in Your Research Context

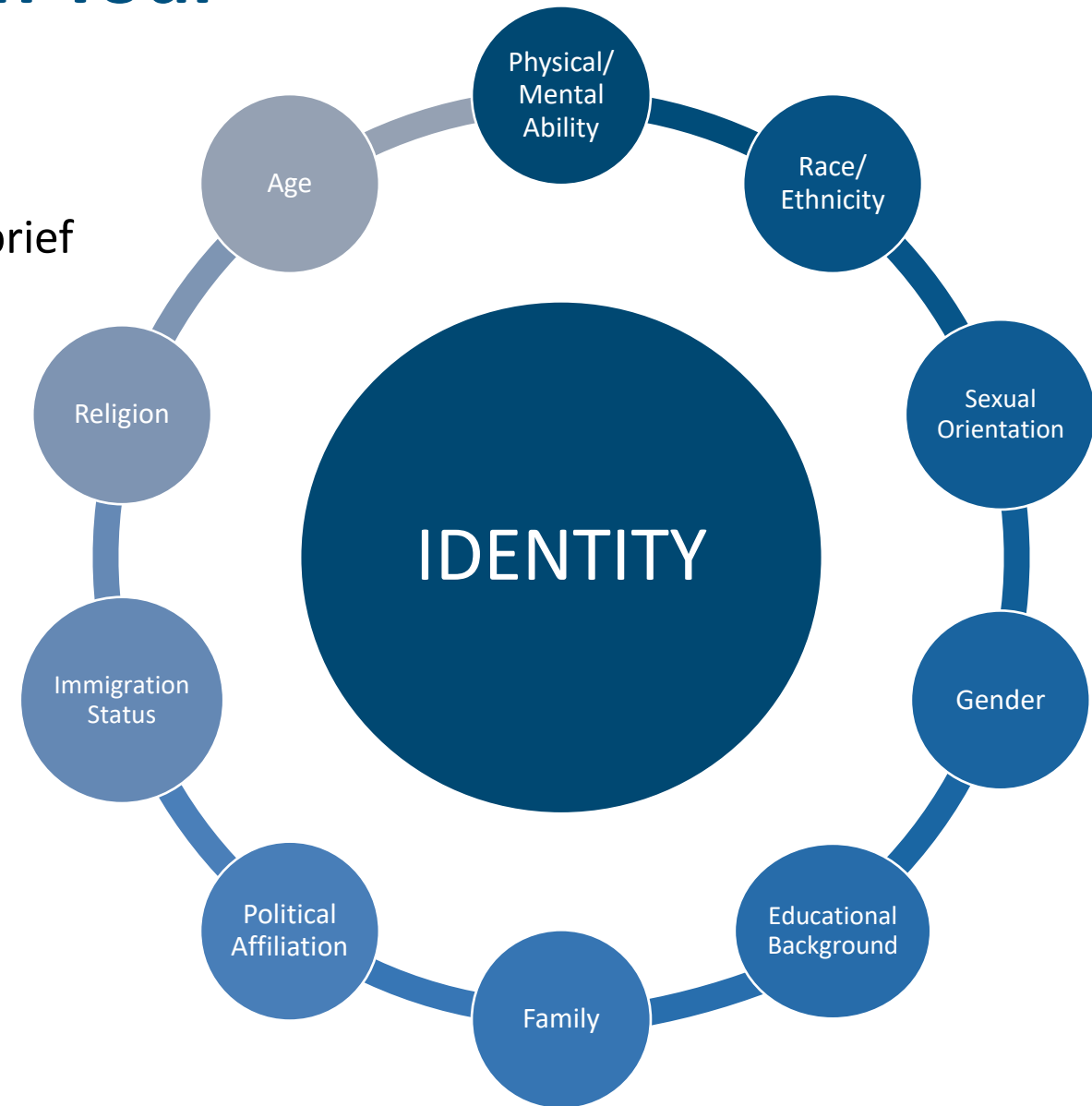
Varsha Ranjit

Activity: Positionality and DEI in Your Research Context and Debrief

Time: 12 minutes for breakout session, 5 minutes for debrief

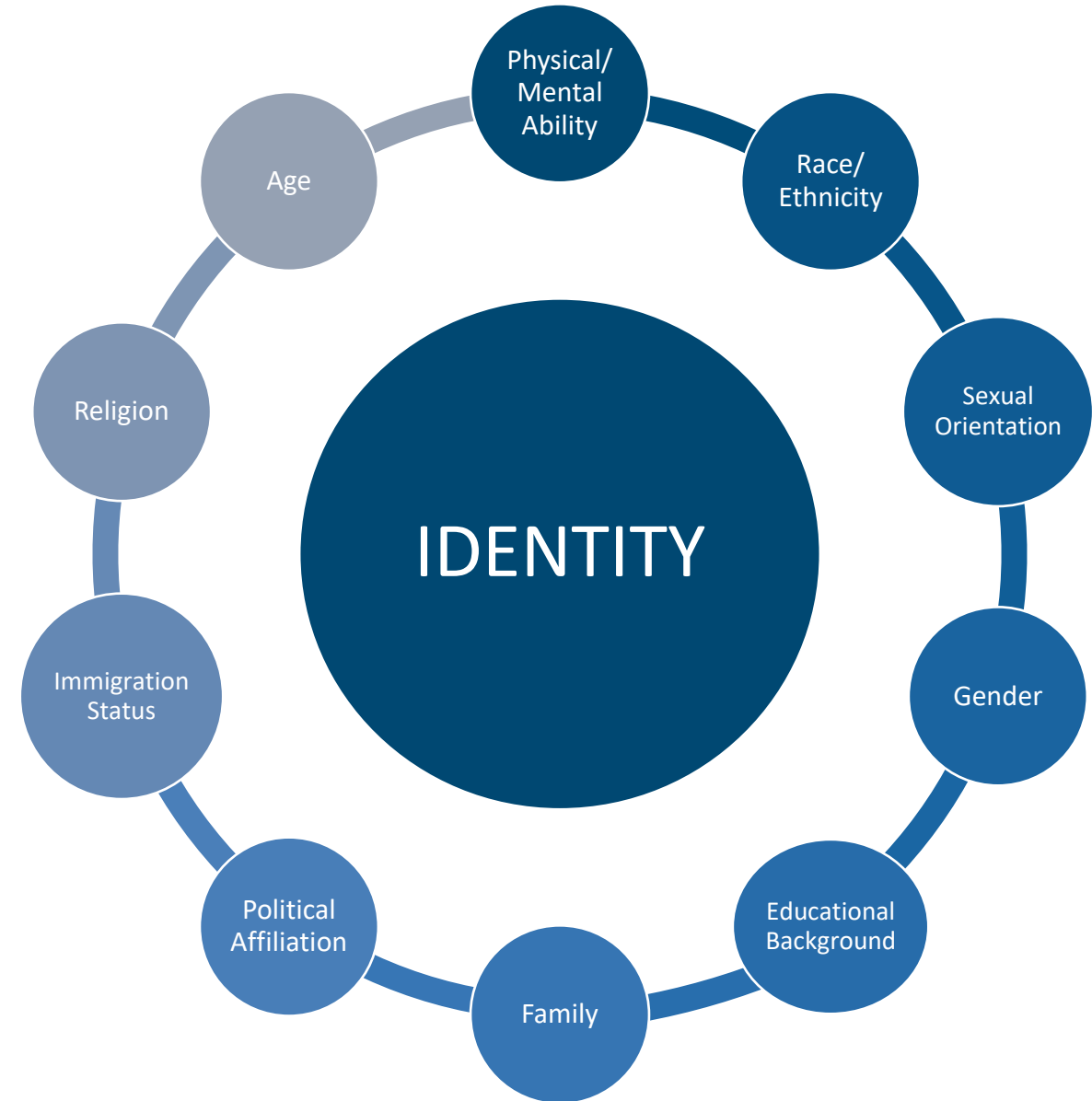
Instructions:

1. You will be randomly assigned to a facilitated breakout room (click on Breakout Room on the menu to join).
2. Individually, take a few minutes to think about the identity wheel to reflect on your positionality (wheel will be shared on the screen).
3. Discuss as a group.
4. Select one participant to provide main takeaways for the whole-group discussion.
5. Debrief with the whole group.



Positionality Reflection

- What are the top three elements from the identity wheel that you feel most impact your identity?
- How do you think these elements may impact your positionality in a research project?



Questions

Next Steps

Varsha Ranjit

Homework Assignment

Time: Complete prior to Session 2

Instructions:

1. Think of a past or current research project and **review your conceptual framework**. if you don't have a past or current framework, please create one with a research topic in mind.
2. Reflect on where your overall conceptual framework falls on the **Continuum for Improved Community Engagement** (choose from: none, some, more community engagement).
3. **Identify and focus on at least two component(s) of your conceptual framework** in terms of improving community engagement. (*Note: We understand that DEI is holistic and that all components of the conceptual framework should be considered. For the purposes of this assignment, we are focusing on two components of the framework.*)

Continued on next slide.

Homework Assignment, cont'd

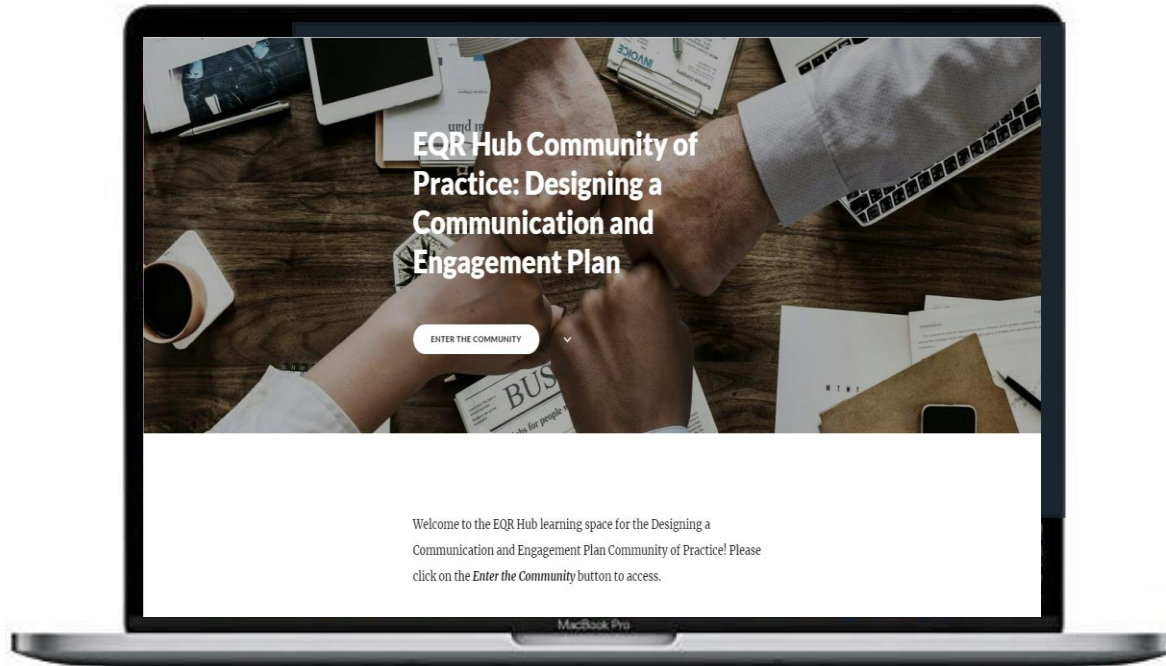
4. Answer the following questions:
 - a. Which components of your conceptual framework did you select?
 - b. Why did you choose these two components?
 - c. Looking at each selected component, where do you think **each of the selected component** falls on the Continuum for Improved Community Engagement?
 - d. Where do you think your **overall conceptual framework** falls on the Continuum for Improved Community Engagement in research?
5. If you would like a thought partner for feedback on your work, please email gmccall@air.org by 2/13/23.

The Journey Toward Community Engagement

Continuum for Improved Community Engagement:



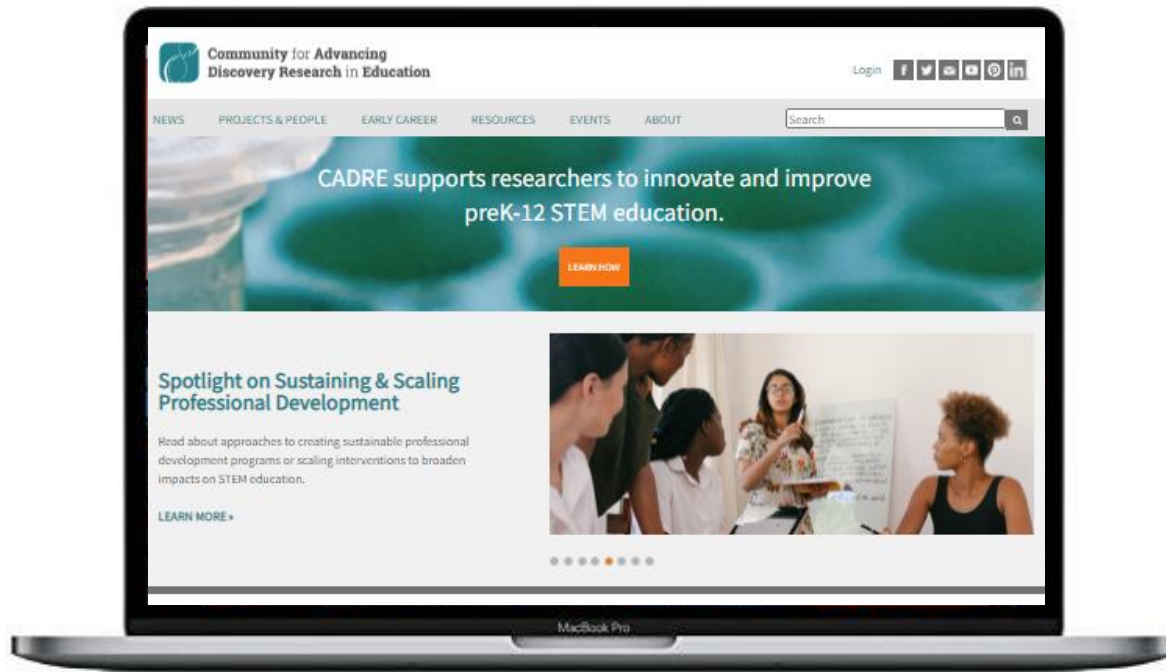
Visit the CoP Learning Space



Develop a Conceptual Framework Centered on DEI

[CoP Learning Space](#)

Stay Connected



Visit the CADRE resources

<https://cadrek12.org/resources>

and EQR Hub page

<http://cadrek12.org/eqr-hub>

Thanks for attending!
