Meaningful Engagement in Research for Students from Underrepresented Groups

Leslie Ponciano, Ph.D.

Director of Research Opportunities, CSU Chancellor's Office

Benefits of Diversity on the Research Team

A more diverse team will make better decisions

- **Expertise**: performance and innovation
  - Advisory board, consultant, co-PI, external evaluator
  - Community outreach/network, translation, culture
- **Personality**: balance and efficiency
  - Introvert/extrovert, big picture/details, worriers/non-worriers
- **Demography**: life experience and perspective
  - Generations, institutions, communities, cultures, languages
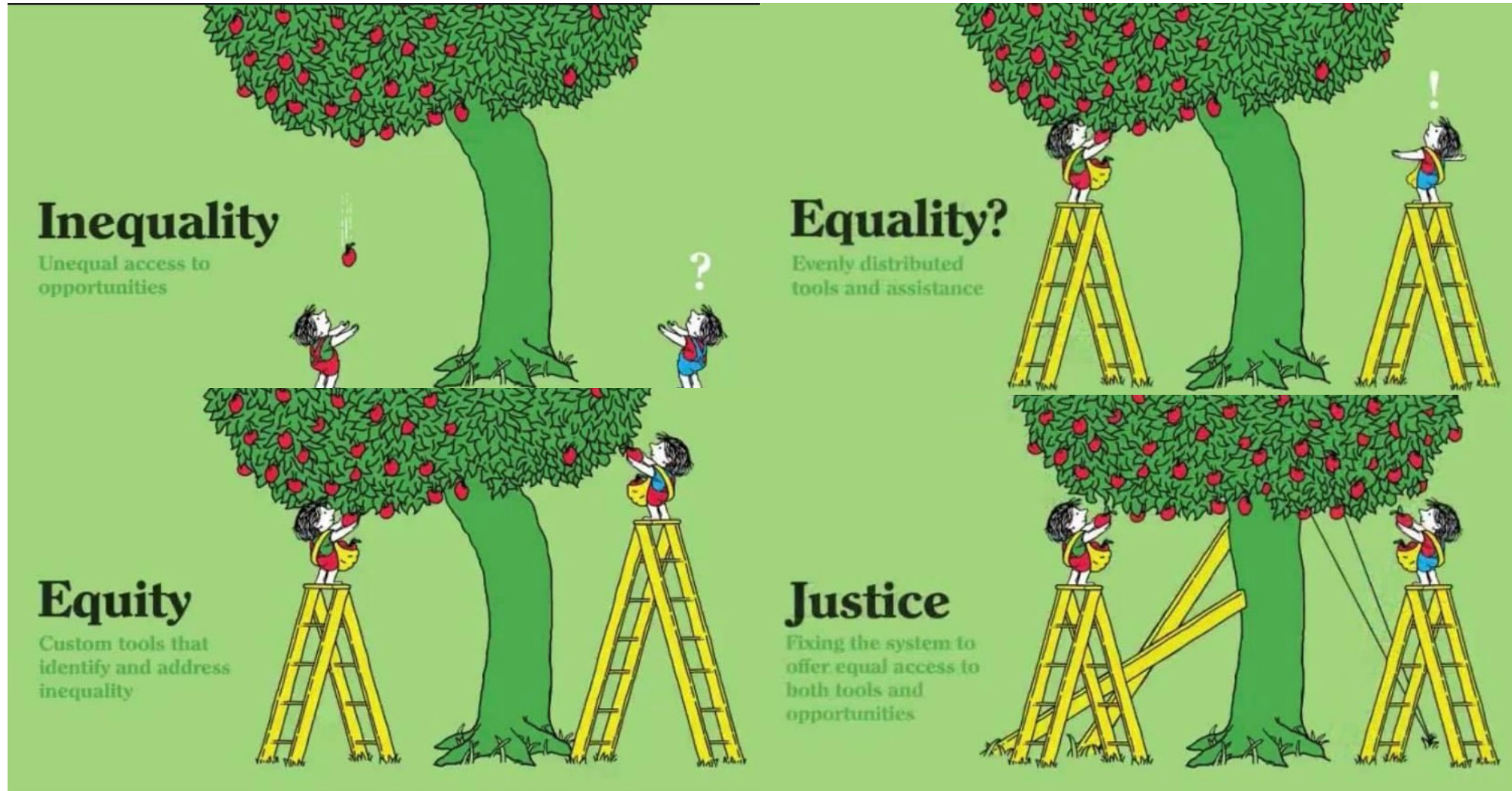
In order to approach **justice** in a system that was not designed to understand their needs, students from underrepresented groups must **hear their own voices and perspectives** reflected in decision-making within an equitable and inclusive environment.

Creating an Equitable, Inclusive Environment

- Create a safe space for everyone to share their perspectives and life experiences
  - *"~~Does anyone have any questions~~?"*

- Listen and integrate new ideas into the design and implementation of the project as well as in the interpretation of the results
  - Provide equitable opportunities to share power and credit

- Suggest resources to everyone that address any potential disadvantages
  - Peer review of writing, Group discounts for purchasing equipment, etc.

- Offer anonymous ways to give feedback

Evaluation (study within a study)

- Purpose
  - Track Progress
  - Collect data for evidence of impact

- Internal and/or external evaluator
  - Social Scientists
  - Centers for Evaluation

- Important factors of design
  - Multiple time points (formative/summative assessments)
  - Safe spaces for feedback

- Proposal elements
  - Evaluation design/methodological approach
  - Include in your timeline or workplan

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Strategies for Grant Proposal Development

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Stories.
Connect.
People.

What + Who + When = How

What	Who	When
Recruitment & Training	PI Co-PI	Month 1 – Month 3, Year 1
Collect field data	PI 2 grad students 4 UG students	Month 3 – Month 9, Year 1 and 2
Lab experiments	Co-PI 1 grad student 2 UG students	Month 10 – Month 12, Year 1 and 2
Feedback Focus Group	External evaluator 3 grad students 6 UG students	Month 6, Year 1 and 2 Month 1, Year 2 Month 12, Year 2

Strategies for Grant Proposal Development

Develop bold but credible goals!

Example:

*The **broader impact** of this study are twofold: 1) to have a more complete understanding about hydroclimatic variability, and 2) to involve undergraduates from underrepresented groups in research to learn how to conduct field work, laboratory analyses, and results interpretation.*

Revised Example (part 1):

*The **broader impacts** of this study are as follows:*

1) *to create <u>meaningful and positive</u> research experiences in hydroclimatic variability for 12 students (4 per year for 3 years) from underrepresented groups to diversify the major and the workforce,*

2) *to <u>share the findings with local vulnerable communities</u>, and*

3) *to <u>indirectly benefit 300 undergraduate students a year</u> with the inclusion of the results in the three related courses at CSUX as well as in similar courses offered across the 23-campus CSU system.*

Revised Example (part 2):

Female, Latinx, and Black undergraduate research students will be recruited and scaffolded to learn how to conduct field work, laboratory analyses, and results interpretation.

All perspectives will be valued in a culturally responsive environment and may potentially influence the design and implementation of the project and/or the interpretation of the results.

Students will receive mentoring for career preparation.

Opportunities for anonymous feedback will occur at multiple timepoints during the project.

Dozens of community stakeholders will be invited to three webinars to hear the results and discuss specific hydroclimatic issues in their communities.

CSU students will indirectly be impacted by this project as the learn cutting edge research results in their courses.

Summary

- A more **diverse** team will make better decisions.

- Create a <u>safe</u> space for students from underrepresented groups to hear their <u>own voices and perspectives</u> reflected in decision-making.

- Tell a compelling story in your application (*What, Why, Who, and How*).

- Develop **BOLD,** credible goals and collect data for evidence of impact.

- Provide concise detail in your broader impacts statement. <u>What</u> are your impact goals and <u>how</u> will you achieve them?