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Framing/Language on Issues of Equity and Inclusion for Grants

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Inspired Cohort Presentation

*The Division of Diversity and Community
Engagement
at the University of Mississippi*

EJ Edney, JuWan Robinson,
& Anthony C. Siracusa

12 January 2021

Agenda

- Introduction and Terminology – JuWan R.
- Frameworks for Moving Beyond Deficit Thinking - EJ
- Applying these Frameworks for Ethical and Effective Community Engagement – Anthony S.

Essential Terms

- Diversity
- Inclusion
- Equity
- Community Engagement
- Communities
- Scholarship of Engagement and Engaged Scholarship



Essential Terms

- **Diversity** is an affirmation of the **intersecting individual, social, and organizational identities** that make our community vibrant and transformational.
- **Equity** is directly addressing **the social, institutional, organizational, and systemic barriers** that prevent members of marginalized groups from thriving in our community.
- **Inclusion** is **actively and intentionally** creating a welcoming campus where everyone feels they have a supportive and affirming space to learn, grow, and engage.



Defining Equity

Equity is the fair **treatment, access, opportunity, and advancement** for all people, while at the same time striving to **identify and eliminate barriers that have prevented the full participation of some groups.**

Improving equity involves increasing justice and fairness within the procedures and processes of institutions or systems, as well as in their distribution of resources.

Tackling equity issues requires an understanding of the **root causes of outcome disparities within our society.**



Asset/Anti-Deficit Minded Models

- How we understand and identify problems affects the questions we ask.
- The questions we ask affect the answers we will get.
- Having an anti-deficit mindset when relating to community members (students, colleagues (from different demographic backgrounds/areas of study), community members outside the institution, etc) helps us to ask the right questions, engage in interdisciplinary work effectively, and engage effectively in work that promotes equity.
- Equity minded work builds capacity for equity minded work.



NEWS

Federal Panel Seeks Cause of Minority Students' Poor Science Performance

By *Peter Schmidt* | SEPTEMBER 15, 2008

- Why do so few pursue STEM degrees?
- Why are they so underprepared for college-level math and science courses?
- Why are their grades and other indicators of academic achievement disproportionately lower than those of their White and Asian American counterparts?
- Why do so many change their majors to non-STEM fields?
- Why do so few continue on to graduate degree programs in STEM?



What do these questions tell us about
the minoritized students who *are*
successful?

Not much.

An Anti-Deficit Achievement Framework for Research on Students of Color in STEM

Shaun R. Harper

- Analyzed data from the National Black Male College Achievement Study
- NBMCAS included data from: Public research universities, highly selective private research universities, private & public historically Black colleges and universities, liberal arts colleges, and comprehensive state universities
- N = 219 Black males at 42 different colleges



Asset/Anti-Deficit Minded Models and *instead of* questions

Cultural capital and social capital theories (Bourdieu, 1986, 1987):

- Deficit: Enumerate barriers to success like: lack prior exposure to high-level science instruction, cutting-edge technologies, sophisticated lab equipment, and insider knowledge shared among family members who have taken college-level STEM courses
- Asset-Minded: Elucidate how minority students from lower-income and working-class backgrounds, cultivate meaningful and value-added relationships with STEM faculty and professionally well-connected others in their fields.

Critical race theory (Harper, 2009; Solórzano and Yosso, 2002; Yosso, 2005):

- Deficit: Relying on deficit-laden reinforcements of minority student underachievement from the education and social science literature.
- Anti-deficit: Recognizes students of color as experts on their experiential realities and empowers them to offer counternarratives concerning their success in STEM fields



Asset/Anti-Deficit Minded Models and *instead of* questions

Stereotype threat theory (Steele, 1997; Steele and Aronson, 1995):

- Deficit: Asks questions that further examine how racist stereotypes have a negative effect on minority student performance in STEM courses
- Anti-deficit: Asks questions that provide insights into strategies these students employ to resist the internalization of discouraging misconceptions and respond productively to stereotypes they encounter on campus.

Self-efficacy theory (Bandura, 1997):

- Deficit: Routinely asking why some students of color struggle to perform well in college-level science and math.
- Anti-deficit: Seeks to understand how achievers develop science identities, how their confidence in specific science- and math related tasks is developed, and how recognition of competence in certain tasks leads to various forms of achievement in others.



Asset/Anti-Deficit Minded Models and *instead of* questions

Attribution theory (Weiner, 1985):

- Deficit: Continually having participants identify all the barriers to persistence and success.
- Anti-deficit: Having minority STEM achievers to name the persons, resources, experiences, and opportunities to which they attribute their achievements.

Campus ecology theories (Moos, 1986; Strange and Banning, 2001):

- Deficit: Repeatedly documenting how few minority persons are in STEM.
- Anti-deficit: Explain how a student of color who is one of few non-White persons in her or his major manages to thrive and negotiate environments that are culturally foreign, unresponsive, politically complex, and overwhelmingly White.



Asset/Anti-Deficit Minded Models and *instead of* questions

Theories on college student retention (Swail, Redd, and Perna, 2003; Tinto, 1993):

- Deficit: concentrating on the social, academic and cognitive, financial, and institutional barriers to persistence.
- Anti-deficit: Exploring the undercurrents of retention in STEM and factors that keep students of color enrolled through degree attainment.

Possible selves theory (Markus and Nurius, 1986; Oyserman, Grant, and Ager, 1995):

- Deficit: Surveying those who dropped out the STEM pipeline to find out more about why they left.
- Anti-deficit: Takes account of which experiences afford STEM persisters opportunities to envision themselves in future long-term careers as chemists, mechanical engineers, math professors, and so on.



Table 6.3. Sample Reframed Research Questions Explored in the NBMCAS

<i>Deficit-Oriented Questions</i>	<i>Anti-Deficit Reframing</i>
Why do so few Black male students enroll in college?	How were college aspirations cultivated among Black male undergraduates who are currently enrolled?
Why are Black male undergraduates so disengaged in campus leadership positions and out-of-class activities?	What compelled Black male students to pursue leadership and engagement opportunities on their campuses?
Why are Black male students' rates of persistence and degree attainment lowest among both sexes and all racial/ethnic groups in higher education?	How did Black men manage to persist and earn their degrees, despite transition issues, racist stereotypes, academic underpreparedness, and other negative forces?
Why are Black male students' grade point averages often the lowest among both sexes and all racial/ethnic groups on many campuses?	What resources proved most effective in helping Black male achievers earn GPAs above 3.0 in a variety of majors, including STEM fields?
Why are Black men's relationships with faculty and administrators so weak?	How did Black men go about cultivating meaningful, value-added relationships with key institutional agents?



Table 6.4. Sample Reframed Research Questions for Students of Color in STEM

<i>Deficit-Oriented Questions</i>	<i>Anti-Deficit Reframing</i>
Why do so few pursue STEM majors?	What stimulates and sustains students' interest in attaining degrees in STEM fields?
Why are they so underprepared for college-level mathematics and science courses?	How do STEM achievers from low-resource high schools transcend academic underpreparedness and previous educational disadvantage?
Why are their grades and other indicators of academic achievement disproportionately lower than those of their White and Asian American counterparts?	What enables students of color in STEM to make the dean's list, compete for prestigious fellowships and research opportunities, and earn high GPAs?
Why do so many change their majors to non-STEM fields?	What compels students of color to persist in STEM fields, despite academic challenge and the underrepresentation of same-race peers and faculty?
Why do so few continue on to graduate degree programs in STEM?	What are common aspects of students' pathways from high school completion through doctoral degree attainment in STEM fields?



Figure 6.1. Anti-Deficit Achievement Framework for Studying Students of Color in STEM

Pre-College Socialization and Readiness	College Achievement		Post-College Persistence in STEM
<p>FAMILIAL FACTORS</p> <p>How did parents help shape one’s college and STEM career aspirations?</p> <p>What did parents do to nurture and sustain one’s math and science interests?</p> <hr/> <p>K-12 SCHOOL FORCES</p> <p>What was it about certain K-12 teachers that inspired math/science achievement?</p> <p>How did one negotiate STEM achievement alongside popularity in school?</p> <hr/> <p>OUT-OF-SCHOOL COLLEGE PREP EXPERIENCES</p> <p>Which out-of-school activities contributed to the development of one’s science identity?</p> <p>Which programs and experiences enhanced one’s college readiness for math and science interests?</p>	<p>CLASSROOM INTERACTIONS</p> <p>How did one negotiate “onlyness” and underrepresentation in math and science courses?</p> <p>Which pedagogical practices best engaged one in math and science courses?</p> <p>How did one craft productive responses to racist stereotypes in the classroom?</p> <p>How did one negotiate STEM despite academic challenge and previous educational disadvantage?</p> <div style="text-align: center;"> </div> <p>OUT-OF-CLASS ENGAGEMENT</p> <p>What compelled one to take advantage of campus resources, clubs, and student organizations?</p> <p>What value did leadership and out-of-class engagement add to one’s preparation for STEM careers?</p> <p>Which peer relationships and interactions were deemed most valuable to STEM achievement?</p> <p>EXPERIENTIAL/EXTERNAL OPPORTUNITIES</p> <p>How did one go about securing a STEM-related summer research experience?</p> <p>In what ways did research opportunities, conference attendance and presentations, and so on help one acquire social capital and access to exclusive, information-rich professional networks?</p>		<p>INDUSTRY CAREERS</p> <p>Which college experiences enabled one to compete successfully for careers in STEM?</p> <p>Which college experiences best prepared one for racial realities in STEM workplace environments?</p> <hr/> <p>GRADUATE SCHOOL ENROLLMENT</p> <p>What did faculty and institutional agents do to encourage one’s post-undergraduate aspirations?</p> <p>Who was most helpful in the graduate school search, application, and choice processes?</p> <hr/> <p>RESEARCH CAREERS</p> <p>What happened in college to ignite or sustain one’s intellectual interest in STEM-related topics?</p> <p>From which college agent(s) did one derive inspiration to pursue a career in STEM-related research?</p>



A Framework for Equity Minded Evaluation

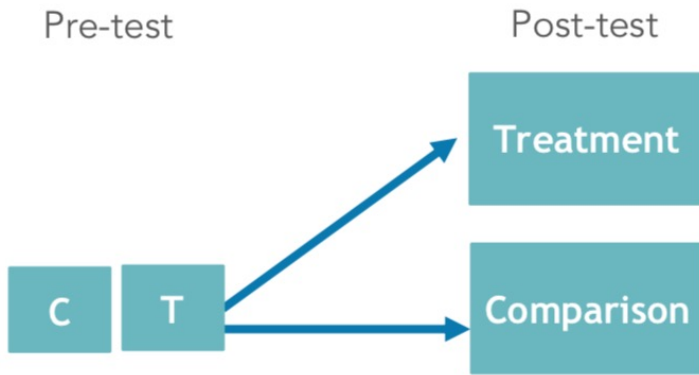
- So how do we account for the deficits in marginalized populations' outcomes?
- What are some tools we can use to properly contextualize these deficits and the systems/structures which cause them without being deficit-minded.
 - Deficit conscious vs. Deficit minded

The Advanced Placement Example

- A federally-funded program brings Advanced Placement (STEM) classes to high-poverty, rural schools that do not have the resources to independently offer these classes.
- Goal: increase access to AP STEM classes among those who do not traditionally have access through hybrid instruction
- Not the goal: Comparing participating students to those at schools that offer standard AP instruction (and therefore have the resources and qualified teachers to offer AP instruction)
- Not the goal: To provide a ‘superior’ method for delivering AP classes
- Facts: The treatment group’s disadvantages are long-term and cumulative.
- Facts: Traditional Quasi-Experimental Designs lack logical comparison group. Comparing participating students to those at schools already offering AP STEM classes is problematic.
- Facts: Traditional statistical tests, which assess superiority, are similarly a poor fit.



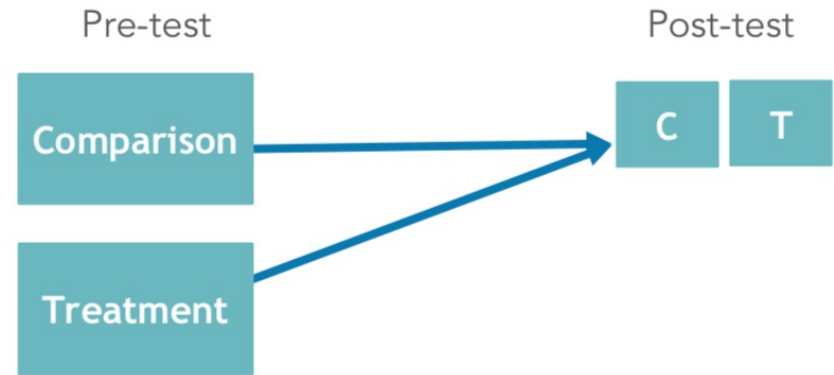
Figure 2: Traditional QED structure



Traditional QED: Groups are equivalent to begin. Hypothesizes that treatment group will perform better on DV after the introduction of the intervention.

Example: Public High School A trials use of success coaches to increase graduation rates for under-represented minorities (URMs), who traditionally graduate at a lower rate than the white student population. Evaluation compares two groups of URMs to see if those who receive success coaches graduate at higher rates than those who do not.

Figure 3: Flipped QED structure



Flipped QED: Comparison group performs better on DV at the pre-test. Hypothesizes that there will be more equivalence after the intervention.

Example: Public High School B trials use of success coaches to increase graduation rates for under-represented minorities (URMs), who traditionally graduate at a lower rate than the white population. Evaluation compares graduation rates for White student to URMs population—who receive success coaches—to see if intervention helps to address the initial disparity in graduation rates.

CE Definitions

- **Community Engagement**: Collaboration between UM and partnering communities for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity while fulfilling UM's mission of scholarly learning, research, and service.
- **Communities** consist of groups of people in the public and private sectors who are affiliated by geographic proximity, special interests, or situational similarities at the local, regional/state, national, or global levels.
- **Scholarship of Engagement or Engaged Scholarship** is scholarship resulting from the collaborative and mutually beneficial partnership between university member(s) (i.e. faculty, staff, and/or student) and external non-higher education partner(s). Engaged scholarship is typically created and communicated through any of the following activities: discovery of new knowledge, development of new knowledge, dissemination of new knowledge, change in learning, change in behavior and/or change in conditions



Working Ethically with Communities: The Background

- The Tuskegee Experiments
- The Stanford Prison Study
- A shift from working “for” or “on” communities to working “with” communities; but how?



Working Ethically with Communities: The Basics

- IRB and Informed Consent
- Dealing with implicit biases and the challenge of expertise
- An ethic of community care
 - Explicitly centering community well-being - "Our vision is to foster resilient communities in Mississippi. To help build communities that can withstand the stresses of natural, economic, and social disasters, by addressing social, educational, and economic inequalities."
 - Establish the value of research *with* communities;
 - Center student success & build a pipeline to the profession through experiential learning process



Connecting CE and DEI: A Winning Formula

- Building partnerships – The intersection of Inclusion and CE
- Attracting and retaining Diverse Faculty is helped by including CE methods;
- Linking identity, engagement, and research is attractive to students



Working Ethically with Communities: Examples

- [Remembering Rondo: An Inside View of the History Harvest](#) - MAC College
- [UM Lead Testing in Jackson](#) - MS Water Resources Research Institute and U.S. Geological Survey – UM
- [SNCC digital gateway](#) - Partnership with Duke
- [Behind the Big House](#) – Whiting Grant
- [Fort Negley](#) – UNESCO Certification - Vanderbilt



Benefits of Interdisciplinary Research

- Junior faculty and women collaborate with higher success rates on NSF interdisciplinary initiative proposals, though more competitive research institutions tend to collaborate less (Lungeanu, A., Huang, Y., & Contractor, N. S., 2014)
- Cluster hiring has benefits of increased faculty diversity, robust research, improved learning, improved campus climate, and student learning (Association of Public & Land-grant Universities, 2020)

What opportunities exist for the INSPIRED Cohort leverage these same benefits?

Questions and Conversation

Thank you!