BUILD PODER: Race/Ethnicity and Biomedical Education

Why Did We Create This Innovation?

Inspiration
- Health disparities persist despite years of targeted intervention and support; diversity in the workforce leads to innovation in the laboratory
- Inequities in student successes in biomedical sciences means that some voices are not at the table
- Faculty and students require a bridge to communicate respectfully and to imagine a different future where passions are inflamed to resolve health disparities

Mission/Goals
- Based on Critical Race Theory, BUILD PODER addresses race and intersectionalities head on by providing a curriculum directed at transparency, rectify, and correcting historical abuses of science
- BUILD PODER unites students and faculty around biomedical research questions, contextualizing and developing questions based on social justice themes
- BUILD PODER aims to build a workforce that thinks creatively about social problems and is well-trained to carry out and disseminate research at the highest levels

Closing the Achievement Gap
- Supporting students who are traditionally under-represented in the biomedical sciences with funding, advanced education, professional development, and community
- Developing a campus culture of curiosity, openness, and respect to develop clear and inviting messages for biomedical and, ultimately, all students to meet their potential

Theory/Evidence/Research
- Critical Race Theory (Derrick Bell, Danny Solerzino, two leaders)
- Our culture is embedded so deeply in a racist past that we cannot acknowledge it without support; we attempt to reveal and learn new practices of interaction around race

Who
- PIs: Gabriela Chavira, Carrie Saetermoe, Crist Khachikian, Maggie Shiffra
- Cohort 1: 22 sophomores, 15 juniors
- Cohort 2: 25 sophomores, 25 juniors
- 6 Colleges, 27 departments, 120 faculty mentor pool
- 27 current faculty mentors
- Research Partners
  - UCLA, UCI, UCSB, UCSD, Claremont Graduate School
- Six Community Colleges
- LAVC, LACP, LAMC, ELAC, PCC, SMC
- Annenberg Foundation grant

What
- Student Research experiences in biomedical research laboratories
- Wrap-around student support: tutoring, student lab/workspace, coordinating with financial aid office, priority registration, UCS stress management courses
- Advanced Research methods courses
- Professional development courses: getting in and surviving graduate school
- Faculty mentor training
- Faculty support for grant-writing
- Writing additional grants to fill-in what’s missing

How
- By providing students and faculty with specific skills, community, and a perspective on how power works its way into the scientific enterprise
- CRT-focused student training curriculum: on understanding and dealing with microaggressions, implicit bias, stereotype threat, and moving beyond discrimination
- Creating a community of support which includes faculty mentors, PI/PI, administrative staff, and peers

Real Student Impact
- “If I had to sum everything into one reason, I would say BP is important to me because it’s my second family. An ideal family provides guidance, support, and friendship and BP has provided me with all of these. When I look at this past year, I’ve presented at two conferences, created my first conference poster, and was accepted to my first summer research program out of state. I definitely don’t think I would have been able to achieve the same accomplishments this past year if it weren’t for BP.”
  - Anna, biochemistry major
- “Never in my life would I have imagined that I would be able to work this closely with the very population that I have always wanted to help so early on in my career. I am grateful for the knowledge that the BP staff have given me this past year. Prior to commencing this program, I had no knowledge about what a vitar or GRE were. Thanks to this program, I feel better prepared for graduate school due to the training and support that the program has given me. Furthermore, it has also exposed me to the value of teamwork. I would have never been able to come this far without the support that everyone has given me.”
  - Sally, community college, psychology major

Markers of Positive Impact
- Demystifying the graduate school process
- Increased self-confidence, self-concept
- Research identity formation
- Student retention
- Student entry into summer research programs
- Student awards and presentations
- Student confidence and productivity
- Student entry into doctoral programs
- Students enter research careers in biomedical fields
- Student-faculty bridges through common CRT framework and curriculum
- Faculty grant and manuscript productivity increases
- Faculty research moves toward health disparities and equity

Critical Race Theory
- “In American higher education, race and racism are imbedded in the structures, practices, and discourses that guide the daily practices of universities.”
- “CRT in higher education challenges the traditional claims of meritocracy, objectivity, colorblindness, race neutrality, and equal opportunity.”
- “In the field of higher education, this framework analyzes race and racism in both a historical and a contemporary context using interdisciplinary methods.”
- “The application of a CRT framework in the field of higher education requires that the experiential knowledge of people of color be centered and viewed as a resource stemming directly from their lived experiences.”
- “In higher education, these theoretical frameworks are conceived as a social justice agenda that struggles to eliminate all forms of racial, gender, language, generation status, and class subordination.”
  - (Solórzano, Villalpando, & Osuera, 2005)

What Impact Does the Innovation Have on the Achievement Gap at CSUN?

Who
- Faculty support for grant-writing
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Institutional analysis and change
- Creating more opportunities to be involved in research experiences across all departments and colleges.
- Receive financial aid before dropped from classes
- Cultural change around respect and non-hierarchical communities of learning
- Student-led competitions for research funds with faculty support and guidance
- Broader training of faculty and staff around matters of race, dialogues within and across units
- Campus coalition around student research training across disciplines, sharing of resources and energies
- Centers built around student research
- Greater external funding for center grants around student research
- Creating a culture of mentoring across the university
- Valuing mentorship in RTP process
- Creating a summer jumpstart program for novice students to prepare them for working in research labs across fields

Future Partners
- A dream collaboration would look like a wrap-around program that fulfills all the academic needs of students.

Who
- Gabriela Chavira and Carrie Saetermoe
- Principal Investigators and Program Directors

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Students?
- Amgen
- AT&T
- Ford Foundation
- Kaiser Foundation

How Could This Be Scaled?

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