



Customized Intervention to Promote STEM Success

Our Mission

The **FL-C LSRCE** is a collaborative research-practitioner partnership between **Santa Fe College** and the **University of the Virgin Islands** to broaden participation in science, technology, engineering and mathematics (STEM) by developing, testing and disseminating mindset intervention practices that enhance growth mindsets when encountering academic challenges.

In conjunction with the **Laboratory of Intergroup Relations and the Social Mind** at **Columbia University** and the **Learning, Research & Development Center** at the **University of Pittsburgh**, **FL-C LSRCE** administrators and faculty from several **Louis Stokes Alliance for Minority Participation (LSAMP)** projects, will participate as implementers of the research to practice activities and serve as consultants to the center.



Our Vision

Designing a customized suite of mindset interventions for students

PLUS

Faculty development to enhance growth mindset, self-affirmation, motivation and attitudes

MEANS

The FL-C LSRCE will **support** and **enhance** students' STEM identities, attitudes and motivation.

This is presented by:

The Florida-Caribbean Louis
Stokes
Regional Center for Excellence



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INCLUDES National Network



Our Team



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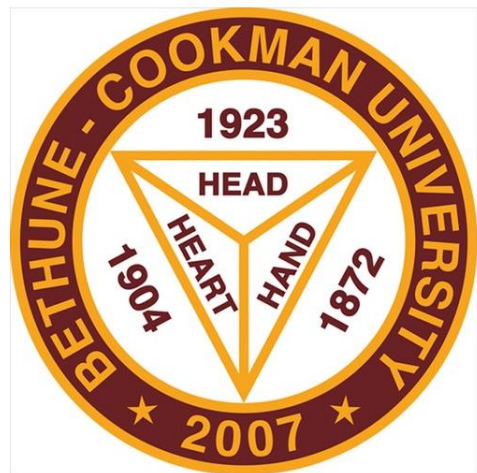


Kathryn Lehman
Director of Sponsored Programs
Santa Fe College



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Our Partner Institutions



VALENCIA COLLEGE





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Student-Facing Intervention Findings

Under the direction of Dr. Omid Fotuhi



Student-Facing Intervention Objectives

1. How to make data-driven decisions
2. Understanding student needs, especially during times of disruption
3. Providing autonomy support: available, responsive and respectful
4. Preparing for Intervention Implementation
5. Open discussion about current issues



Customized Intervention

- **Adaptive Resilience (de novo)**
 - Borne out of recognition that certain students respond to difficulty by trying to get through it on their own.
 - Research shows working with others (e.g., prof, peers) is more effective strategy for learning.
 - Reframes the meaning of resilience from a solitary journey to a collaborative experience.
 - Encourages help-seeking



Faculty-Facing Intervention

Under the direction of Drs. Chandler, Cummings and
Brunings



Faculty Intervention: Professional Development and Modeling

Florida-Caribbean Louis Stokes Regional Center of Excellence
Mindsets for STEM Summer 2020 Virtual Convening

Adaptive Mindsets and Resilience:
Broadening Participation in STEM at Community Colleges and
HBCUs

June 15, 2020
10:00 a.m. - 12:00 p.m.

MindsetsForSTEM.org
Twitter: @FLC_LSRCE
Facebook: @FLCLSRCE

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3. The Cultural Competency and Inclusion Certificate Program (September - November 2020)

- A total of 45 faculty members registered for this training from 14 institutions.
- Overall findings for participants indicated high levels of satisfaction, relevance to faculty personal and professional development with the provided training.
- Faculty members indicated that they learned and modeled 5 thematic strategies; those themes include; 1) *Practice in learning*, 2) *Student Communication Strategies*, 3) *Growth Mindset Defined*, 4) *Strategies and Tools*, and 5) *Self-Reflection in Teaching*.

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Faculty Intervention: Reaching Beyond our Borders

- ★ **Alabama**
Alabama State University
Tuskegee University
- ★ **Canada**
Wilfrid Laurier University
- ★ **California**
California State University - Northridge
Omni Research
Pacific Oaks College
- ★ **Colorado**
Front Range Community College
- ★ **Florida**
Bethune-Cookman University
Florida International University
Florida State University
Ross University
Santa Fe College
Tallahassee Community College
Valencia College
University of Florida
- ★ **Illinois**
Loyola University Chicago
University of Illinois
Waubesa Community College
- ★ **Maryland**
Baltimore Public School System
University of Maryland
- ★ **Michigan**
University of Michigan
- ★ **New Hampshire**
University of New Hampshire
- ★ **New Jersey**
Montclair State University
- ★ **Ohio**
University of Cincinnati
- ★ **South Carolina**
South Carolina Sea Grant
- ★ **Texas**
Texas A & M University - Corpus Christi
- ★ **U.S. Virgin Islands**
University of the Virgin Islands



Expanded our Mindset Virtual Training in 2020

- ★ 1 U.S. Territory
- ★ 2 Countries
- ★ 12 States
- ★ 27 Institutions and Organizations
- ★ 181 Registered Participants



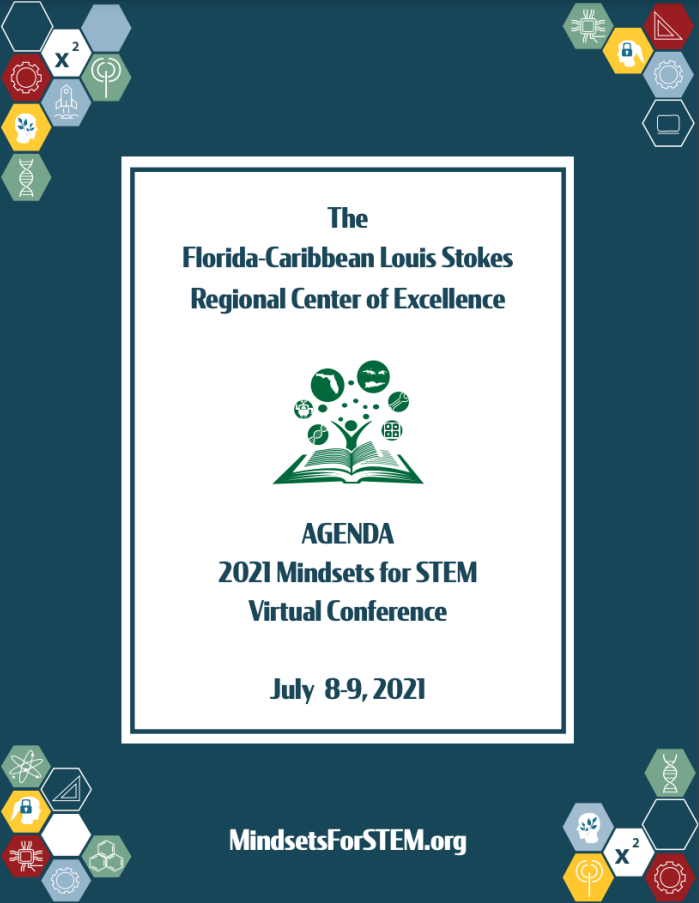
Our Collaborative Partners:



This collaborative project, "Florida-Caribbean Louis Stokes Regional Center of Excellence," is funded by the National Science Foundation and NSF INCLUDES award number HRD-1826532 (2018-2021.)



Developing and Modeling Growth Mindsets for STEM Conference



The
Florida-Caribbean Louis Stokes
Regional Center of Excellence



AGENDA
2021 Mindsets for STEM
Virtual Conference

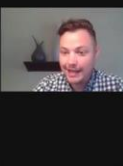
July 8-9, 2021

MindsetsForSTEM.org



Sample of Student Responses

Applied Statistics Response 1	Honors Student Response 1
I have always been one to struggle with math and find it difficult to understand. With watching these videos it shows to keep going and have an open mindset towards your goals because you can go far and get better along the way. I will try to the best of my ability to fully understand what we learn online and keep the information stored so I can get the best grade I can.	I learned that everyone has to start somewhere. Of course, growing up, I had heard the phrase being said by my teachers and family, but I hadn't given it much thought. I like when the speaker gave the example of Einstein not knowing how to count to ten. It made me feel like everyone is in the same boat when it comes to learning. It's very humbling to think that we all started as babies and have gone through our failures to be where we are now.



- Faculty submitted proposals for presentations of Mindset Interventions, Novel Materials or Classroom Techniques, and Theoretical Analysis of Intervention Strategies
- Ninety-two registrants with 20 presentations (18 faculty-led and 2 student-led)



Faculty Modeling Growth

Continued STEM Development with BNL



Dr. Sidney Bolden, Jr.
Bethune-Cookman University

The FL-C LSRCE hosted an informational session for faculty with Noel Blackburn, Brookhaven National Laboratory, Dr. Sidney Bolden, Jr., Assistant Professor of Chemistry at Bethune-Cookman University, a FL-C LSRCE partner institution, applied and was selected to participate. Dr. Bolden's summer research plans were to investigate bio-mimetic light harvesting systems and materials to enhance energy transfer efficiency. This internship was disrupted by COVID-19. See mindsetsforstem.org/sidney-bolden.



Collaborative Research with FL-LSRCE

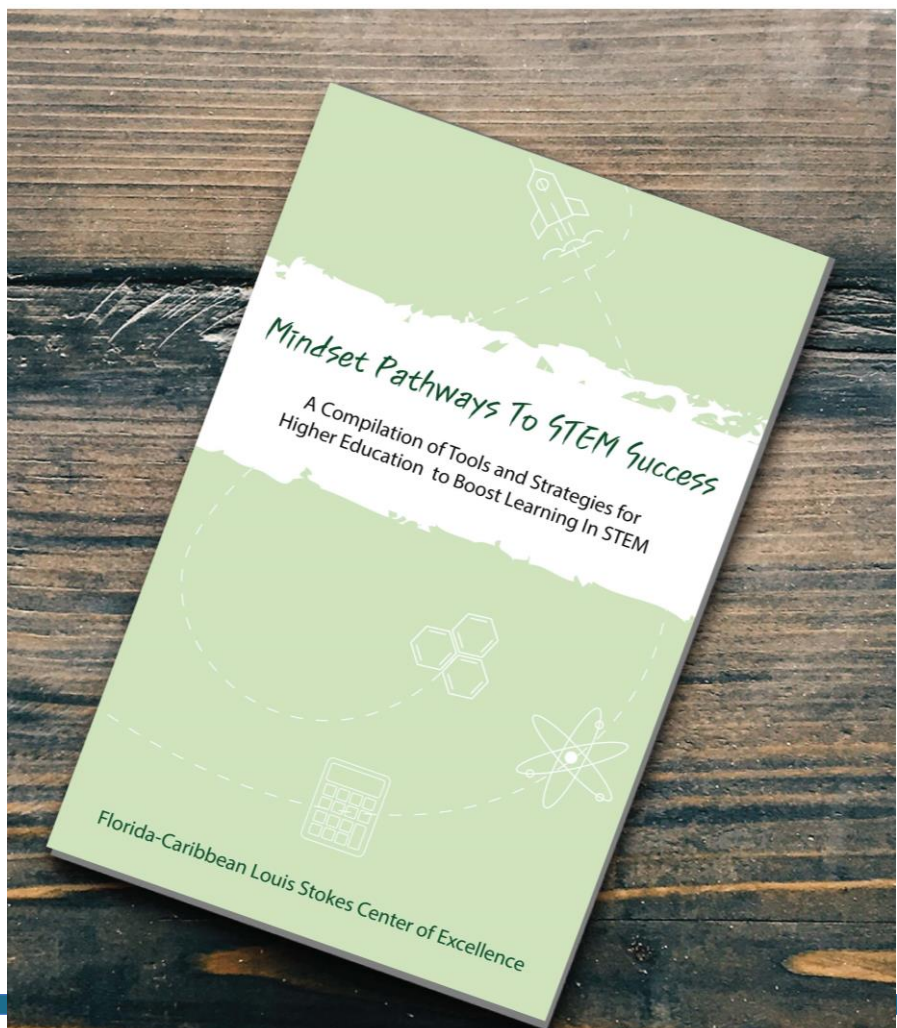
Chandler, J., Cummings, L., Waschull, S., McKayle, C. McSween, V., Lee, B. (2020). Power Up: Equipping Faculty to Develop Mindsets for STEM Success at Community Colleges and HBCUs. *Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)*, Santa Cruz, CA.

Cummings, L., Chandler, J., Waschull, S., McKayle, C., Wilson-Howard, D., & Brooks, R. (2020). Building it custom: Psychosocial interventions to navigate the -ISMs of higher education and STEM inclusion of URM. *Institute for the Study and Promotion of Race and Culture Diversity Challenge Conference*, Boston, MD.

Cummings, L., Chandler, J., Waschull, S., McKayle, C. Blackmon-Tucker, A. (2021). Customizing Mindset Interventions to Navigate the -ISMs of Higher Education: Intersectionality as an Institutional Variable. *Center for Culturally Responsive Evaluation and Assessment (CREA)*, Chicago, IL.



Providing Voice to Mindset Innovations



UPCOMING PUBLICATION OPPORTUNITY for FACULTY

MINDSET PATHWAYS FOR STEM SUCCESS

A Compilation of Tools and Strategies for Higher Education to Boost Learning in STEM



The Compass Group

A Collaborative
Oppportunity for **M**anuscript
Proposal **A**nd **S**upport **S**tructures



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For more information, go to
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Our collaborative partners



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