

Mindset Scholars Network's Portfolio of Research on Mindsets and the Learning Environment

JANUARY 2017

The [Mindset Scholars Network](#) recently launched a new interdisciplinary initiative to explore how learning environments shape the mindsets students develop about learning and school. The Mindset Scholars Network issued a request for proposals (RFP) to network members for interdisciplinary studies that would utilize recently collected, large-scale datasets. This RFP, originally funded by the Raikes Foundation, awarded over \$500,000 to the projects outlined below.

A BIG BIODATA APPROACH TO MINDSETS, LEARNING ENVIRONMENTS, AND COLLEGE SUCCESS

Principal Investigator: [Sidney D'Mello](#)

Co-PI: [Angela Duckworth](#)

Other Team Members: Stephen Hutt, Margo Gardner, Parker Goyer, Donald Kamenz, Chad Spurgeon, Lauri Bonacorsi

Team Disciplines: Computer Science, Developmental Psychology, Education & Human Development

Primary Research Questions:

- Which mindset-related factors gleaned from student biographical data (e.g., extracurriculars, work experience) best predict college success?
- How do students' learning environments in high school influence the mindset-related factors that predict college success?

THE NATURE AND REPRODUCIBILITY OF MINDSET EFFECTS ACROSS DIVERSE CONTEXTS

Principal Investigator: [Mesmin Destin](#)

Co-PIs: [Elizabeth Tipton](#), [Stephanie Fryberg](#), [David Yeager](#)

Other Team Members: [Robert Crosnoe](#), [Chandra Muller](#), Paul Hanselman

Team Disciplines: Psychology, Statistics, American Indian Studies, Sociology

Primary Research Questions:

- What supports are necessary for learning mindsets to lead to positive outcomes for students in disadvantaged environments?
- What makes a mindset program effective for students attending the poorest schools? How can these programs be designed to improve outcomes for students who face high levels of socioeconomic disadvantage and adversity?

THE EFFECT OF SCHOOL CLIMATE ON STUDENTS' SOCIAL-EMOTIONAL COMPETENCIES

Principal Investigator: [Matthew Kraft](#)

Co-PIs: [Chris Hulleman](#), Katie Buckley

Team Disciplines: Economics, Psychology, Education

Primary Research Questions:

- How does school climate affect students' social-emotional competencies?
- What dimensions of school climate are most important for promoting a growth mindset and social-emotional development?
- To what degree are students holding a fixed mindset and low social-emotional competencies concentrated in the same schools?

THE ROLE OF PSYCHOLOGICALLY WISE TEACHING IN STUDENT ACHIEVEMENT

Principal Investigator: [Geoffrey Cohen](#)

Co-PI: Tanner LeBaron Wallace

Other Team Members: [Ronald Ferguson](#)

Team Disciplines: Psychology, Education, Economics

Primary Research Questions:

- How are teachers creating cultures of growth, belonging, purpose, and affirmation through their daily instructional practices?
- What "psychologically wise" instructional practices distinguish between low and high academic growth classrooms?

**MINDSET
SCHOLARS
NETWORK**

Hosted at the Center for Advanced Study in the Behavioral Sciences at Stanford University, the Mindset Scholars Network is a group of leading social scientists dedicated to improving student outcomes and expanding educational opportunity by advancing our scientific understanding of students' mindsets about learning and school.

MindsetScholarsNetwork.org

LEARNING MINDSET DEVELOPMENT IN CO-REQUISITE COURSES ACROSS LEARNING CONTEXTS

Principal Investigator: [Chris Hulleman](#)

Co-PI: Stephanie Wormington

Other Team Members: [Elizabeth Tipton](#), [Ron Ferguson](#), [Tim Wilson](#)

Team Disciplines: Psychology, Education, Statistics, Economics

Primary Research Questions:

- How do learning mindsets develop during co-requisite courses (courses in which postsecondary students take a one-credit support course alongside foundational math, English, and writing courses—rather than a non-credit developmental course)?
- What factors affect learning mindset development in co-requisite courses?
- Are changes in learning mindsets associated with academic, career preparation, and employment outcomes, and are these benefits explained by learning mindsets?

HOW DO TEACHERS' BEHAVIORS AND CLASSROOM ENVIRONMENTS PROMOTE IDENTITY SAFETY, GROWTH MINDSET, AND PERFORMANCE FOR UNDERSERVED STUDENTS?

Principal Investigator: [Stephanie Fryberg](#)

Co-PIs: Zoe Higheagle Strong, [Mesmin Destin](#)

Other Team Members: Laura Brady, Bruce Austin, Amy Roth McDuffie, [Chandra Muller](#)

Team Disciplines: Psychology, American Indian Studies, Education, Statistics, Sociology

Primary Research Questions:

- Which environmental factors (e.g., teachers' mindsets about intelligence and growth mindset practices) cue identity safety for underserved students, particularly for Native American students?
- How do these identity safety environmental factors facilitate or hinder the effectiveness of growth mindset interventions, particularly for underserved students?
- Are growth mindset interventions more effective in classrooms where environmental factors cue identity safety?

TEACHERS' MINDSETS ABOUT MATHEMATICAL ABILITY AS A FEATURE OF THE LEARNING ENVIRONMENT

Principal Investigator: [Andrei Cimpian](#)

Other Team Members: Joseph Robinson Cimpian, [Matthew Kraft](#)

Team Disciplines: Psychology, Economics, Education

Primary Research Questions:

- Are teachers' mindsets about mathematical ability related to their classroom practices?
- Are teachers' mindsets about mathematical ability directly related to students' learning?
- Are classroom practices related to students' perception that their teacher endorses a growth mindset? If so, which practices are most strongly related to these perceptions?
- Are there differences between stigmatized and non-stigmatized students in terms of how they perceive their teachers' mindsets? Are stigmatized students less likely to perceive that their teachers endorse a growth mindset (e.g., think that anyone can become good at math)?

DEVELOPMENTAL, NEURAL AND PSYCHOSOCIAL CORRELATES OF MINDSET AMONG LOW-SOCIOECONOMIC ADOLESCENTS FROM TWO CULTURAL GROUPS

Principal Investigator: Mary Helen Immordino-Yang

Co-PI: [Camille Farrington](#)

Other Team Members: Xiaofei Yang, Christina Krone

Team Disciplines: Neuroscience, Education

Primary Research Questions:

- Is it possible to extend mindset programs to target broader psychosocial and neurobiological health outcomes among adolescents?
- How do cultural influences on social brain development explain how exposures to cultural norms and values shape styles of social-emotional and self-processing?
- Are there practices and policies that could more effectively support the development of learning mindsets by strategically leveraging opportunities for downtime and reflection with opportunities for concrete productivity?