

NC State Innovation & Entrepreneurship Seed Grant Proposal

Title:

A Strategic Mindset Intervention for Entrepreneurs

Project Synopsis

This proposal outlines the development of a growth mindset intervention focused on aspiring entrepreneurs' strategic mindset. The ability to solve problems and effectively overcome challenges is a good indicator of whether aspiring entrepreneurs will be successful in launching their ventures. Accordingly, we assert that an intervention focused on instilling a stronger strategic mindset—defined as “a metacognitive ability whereby a person asks themselves strategy-eliciting questions to aid in goal achievement” (Chen et al., 2020; Michaelis et al., 2021, p. 1)—will be particularly useful. First, we investigate if a strategic mindset can be strengthened. We will develop and test an online, scalable, intervention aimed at fostering growth strategic mindsets. Second, we suggest that such a mindset will contribute to entrepreneurship success. Here, we will focus on improved problem-solving and more adaptive coping when inevitable challenges arise. We propose recruiting participants in the venture incubator program facilitated by the NC State Entrepreneurship Clinic. Working in conjunction with colleagues from the Poole College of Management as well as CHASS will build interdisciplinary relationships focused on enhancing research in entrepreneurship at NC State University. Such collaborations will lead to publications and future collaborative scientific endeavors. Furthermore, we will submit our work for publication in a FT-50 journal. The proposed research is theoretically rich, uses innovative rigorous methodologies, and provides practical insights, making it publishable in such top-tier outlets.

Project Personnel

Primary Investigator

Jeni Burnette (Department of Psychology). Email: jlburne5@ncsu.edu

Co-Investigators

Sydney Earl (Department of Psychology). Email: searl@ncsu.edu

Josh Guter (NC State Innovation & Entrepreneurship). Email: jsguter@ncsu.edu

Haley Huie (Management, Innovation, & Entrepreneurship Dept.). Email: hehuie@ncsu.edu

Project Summary

Decades of research, across various domains—ranging from academics to athletics to leadership—highlights the power of mindsets, or beliefs about the fixed versus malleable nature of human characteristics and abilities (Dweck, 2006). Mindsets affect how people set, pursue, and achieve goals, with growth mindsets predicting a host of positive outcomes related to individual flourishing (Burnette et al., 2022). For example, developing a more growth-oriented mindset can lead to increased motivation, perseverance, and a more positive approach to challenges and setbacks. Critically, individuals can strengthen their growth mindset through self-awareness, intentional effort, and a belief in the power of learning and resilience. For example, there have been two growth mindset-based interventions in entrepreneurship (Burnette et al., 2020; Morris et al., 2023). Although neither focus on strategic mindsets, these examples do offer an initial foundation for the potential to foster stronger growth mindsets in entrepreneurship.

We extend this work by focusing on a new type of mindset. Namely, we suggest that a stronger growth-oriented strategic mindset will be crucial for entrepreneurial success—i.e., enabling individuals to navigate challenges, capitalize on opportunities, and build a resilient and successful business in the long run. Additionally, although growth mindset interventions have been shown to be generally efficacious (e.g., Burnette et al., 2022), we suggest three ways to strengthen effects. First, in addition to the standard active ingredients included in the original interventions (e.g., reading and writing activity that stress the changeable nature of attributes), we will incorporate additional techniques shown to strengthen mindset change (e.g., teaching about the research; use of role models). Second, recent work highlights the importance of understanding the more proximal psychological and behavioral processes that explain the more distal effects (Miller et al., 2017), such as long-term business capital. Thus, here, we test if growth mindsets lead to more time spent problem-solving and less avoidant coping in response to challenges. Third, to contribute to implementation science, we will explore variations in mindset messaging to articulate the most powerful approach to shifting mindsets. Finally, to enhance scientific rigor and replicability, we will practice open science. Overall, we develop and test a strategic mindset intervention and ask the following research questions:

1. Can a growth mindset intervention, relative to an attention-matched control, strengthen aspiring entrepreneurs' strategic mindset?
2. Will a more growth-oriented mindset predict more adaptive responses to challenges?

Anticipated data collection and methodological approach- Participants will be individuals in the incubator facilitated by the NC State Entrepreneurship Clinic. Roughly 10-15 participants are enrolled in cohorts on a rolling basis throughout the semester. We will build on past work on strategic mindsets and draw on expertise related to the implementation of mindset intervention to develop our proposed program. We propose using a concurrent multiple-baseline-across-participants design with a baseline condition (i.e., observation only), an intervention condition (i.e., strategic mindset), and a brief maintenance condition (consisting of observation only). Consistent with past recommendations and procedures for using a randomized multiple-baseline-across-participants design (Kratonchwill & Levin, 2014; Levin & Ferron, 2021), we will randomly assign participants to staggered intervention start points.

Expected contributions

Drawing on best practices in the growth mindset intervention literature (Burnette, Billingsley, et al., 2023; Burnette, Knouse, et al., 2023) and layering in approaches to running interventions with small samples (e.g., Begeny et al., 2023), we aim to develop and implement an online, scalable, growth mindset intervention focused on strategic mindset among aspiring entrepreneurs. This innovative and interdisciplinary approach offers promise for landing the manuscript in a top FT-50 journal. It will also lay the foundation for future collaborations among colleges at NC State University.

Budget

\$1,000- graduate student hourly pay

\$5,000- time reallocation time for PI Dr. Burnette

Timeline

Spring 2024- intervention development

Summer 2024- pilot testing

Fall 2024- full deployment, data collection, data analysis

Spring 2025- manuscript writing and journal submission

References

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Biosketches

Jeni Burnette is a Professor of Psychology at North Carolina State University. Jeni's research applies basic social psychological theories to understanding fundamental social issues. She primarily focuses on how to implement growth mindset interventions in ways that foster self-regulation and improve health. She also helps organizations develop growth mindset cultures. Her work has been published in journals including *Psychological Bulletin*, *Psychological Science*, *Journal of Personality and Social Psychology*, *Journal of Experimental Social Psychology*, and *Personality and Social Psychological Bulletin*.

Sydney Earl is a third-year graduate student in the Applied Social and Community Psychology program in the Department of Psychology at North Carolina State University. She is broadly interested in mindsets and how they relate to psychological and behavioral processes in health contexts. She is also interested in how to apply findings to implement effective interventions for improving health—and, Sydney has been a coach and research consultant at Noom since 2020.

Josh Guter, the Program Management at the NC State Entrepreneurship Clinic, graduated with a bachelor's degree in Technology Engineering and Design Education with a focus on Graphic Communication, from the College of Education. During his time at NC State, Josh was a Goodnight Scholar and was involved in entrepreneurship through the Entrepreneurship Ambassador program. As an ambassador, Josh attended and helped plan several events and served as the President of the group in its inaugural year. Josh is the founder of Never Far Away, a company that enables access to low-cost, easy-to-use wearable devices that allow any user to communicate distress, and location, in remote areas, without relying on cellular, satellite, or other outside communication methods.

Haley Huie, Director of the Entrepreneurship Clinic, joined the NC State Entrepreneurship team in June 2015 after serving as the Director of Experiential Learning for NC State Entrepreneurship, and led the Albright Entrepreneurs Village and the Garage team to support student entrepreneurs through a vibrant learning community at NC State. She works with the Garage members and Albright Entrepreneurship Village residents to provide co-curricular events and programming to bolster growing ventures and ideas. She also teaches courses designed to promote entrepreneurial thinking and heads up K-12 summer programs. Prior to joining the team, she spent more than 10 years working in higher education in the areas of student programming, instruction and retention initiatives, and in business consulting. She is an alumna of NC State and holds a master's degree in instructional technology and leadership in higher education.