

Motivating High School Teachers to Support Students' Growth Mindsets Reduces Inequality in Academic Outcomes

Cameron A. Hecht, Christopher J. Bryan, and David S. Yeager

INTRODUCTION

The United States is one of the most economically unequal developed countries, and it is difficult for people to move up the social ladder. Education may be one of the best ways for those who start with less money and privilege to improve their lives. It can lead to better jobs and other positive outcomes, such as better health and social wellbeing. However, young people from lower-income backgrounds face many obstacles to academic success, including being more likely to attend underfunded and under-resourced schools. These deeply entrenched barriers mean that instead of reducing inequality, the American education system often makes it worse.

The classroom culture, which includes the shared goals, beliefs, and norms of teachers and students, plays a role in academic inequality. In particular, when a classroom culture is guided by the belief that intellectual abilities are fixed and cannot be improved, it can worsen the disparities among different groups of students. This *fixed mindset classroom culture* can be especially difficult for students who struggle or who belong to certain groups (based on their ethnicity or whether they are socioeconomically disadvantaged) because many people hold negative stereotypes about their ability to succeed academically.

In fact, one study found that nearly half of teachers surveyed believed that “there is little they can do to help a student learn” if the student was from a socioeconomically disadvantaged background [1]. This kind of thinking suggests that teachers may be especially likely to encourage fixed mindset cultures within classrooms that serve students who already suffer from deeply entrenched barriers to success. This, in turn, can contribute to a reinforcing cycle of inequality.

KEY FINDINGS

High school teachers received a 45-minute self-administered online intervention aimed at promoting growth-mindset communication practices by explaining how these practices were in line with teachers' shared value of inspiring enthusiasm for student learning.

- ▶ **The intervention had a positive impact on teachers.** Compared to a control group of high school teachers who received training on how to improve virtual teaching methods, teachers who received the intervention reported:
 - ▶ greater intentions to adopt the suggested growth mindset-supportive practices; and
 - ▶ higher levels of growth mindset beliefs about their students.
- ▶ **The intervention had a positive impact on students' pass rates and grades and reduced inequality.** In classes with socioeconomically disadvantaged students, the intervention improved pass rates by 6-11 percentage points and course grades by 0.14-0.36 grade points. (Numbers are from different statistical models with more or less conservative assumptions.) Smaller effects were found in classes with more socioeconomically privileged students. Together, these changes reduced inequality between socioeconomically disadvantaged students and privileged students for these academic outcomes.
- ▶ **If implemented widely, the intervention has the potential to positively impact hundreds of thousands of socioeconomically disadvantaged students.** Using the most conservative estimate, if the intervention were delivered to every teacher who teaches dual-enrollment courses in the U.S., it could translate to roughly 157,750 more students in high-poverty U.S. schools who would pass their dual-enrollment courses each year. *See figure*

INTRODUCTION, CONT.

One way to lessen the negative effects of a fixed mindset classroom culture would be to engage with the teacher to adopt practices that promote a *growth mindset classroom culture*. This means that the teacher creates an environment guided by the belief that students' intellectual abilities are not fixed but can be learned and improved with effort and learning.

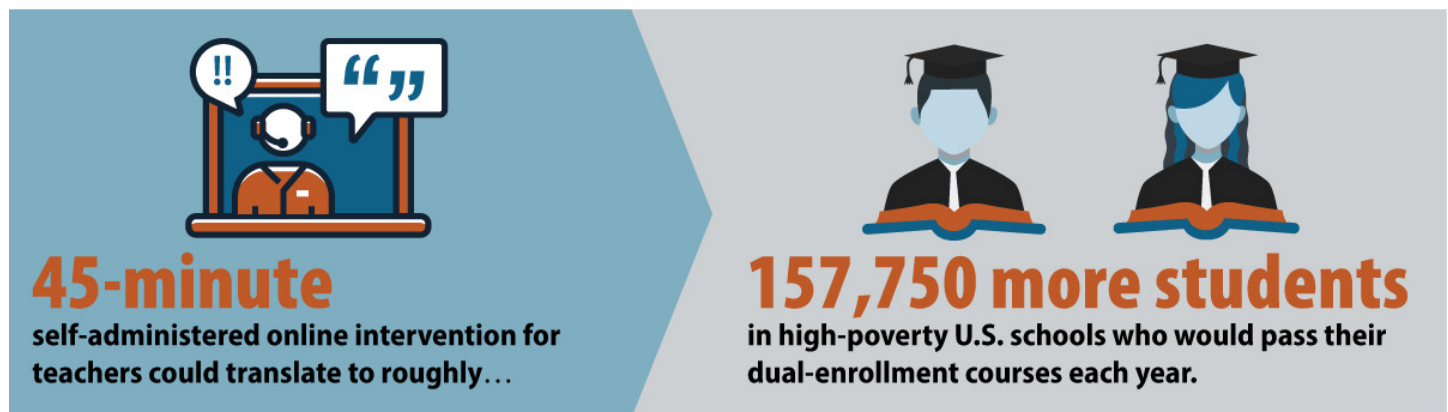
However, most attempts to develop brief, scalable interventions to change teachers' practices have failed. This is primarily because most teachers are overburdened and unsolicited suggestions from administrators or outside experts threaten to upset the balance they have already struck between competing priorities.

A promising approach to behavior change is to tap into people's existing motivations and values and show how the desired behavior – in this case, practices that support a growth mindset – aligns with values that individuals already hold. This approach is called *values-alignment*. In this study, the authors interviewed teachers and learned that a central value they shared was the desire to motivate student learning without resorting to coercion (such as threats or yelling).

Using this values-alignment framework, the authors developed a 45-minute self-administered online intervention to motivate teachers to adopt new communication practices in the classroom that have been found to support and reinforce students' growth mindsets [2].

The intervention was delivered to high school teachers in dual-enrollment programs that allow high school students to take college-level courses and earn both high school and college credit. Most students from lower socioeconomic status backgrounds currently fail these courses. Therefore, if this intervention improves academic performance in these courses, especially for students with socioeconomic disadvantages, it could improve their chances of going further with their education.

A growth-mindset intervention for teachers could positively impact hundreds of thousands of socioeconomically disadvantaged students



The intervention promotes teachers' growth-mindset communication practices. It explains how the practices help teachers realize their desire to inspire enthusiasm for student learning. The number of students assumes that every teacher who teaches dual-enrollment courses in the U.S. would receive the intervention.

POLICY IMPLICATIONS

This work provides strong evidence for an effective, brief, self-administered teacher training module that can motivate teachers to adopt new practices that support academic outcomes among underserved and disadvantaged students.

This research also demonstrates how unfair systems, which often reinforce inequality, can be made less unequal. This is true even when changes to problematic policies are not immediately within reach. It also avoids placing the burden of change on individuals who are already disadvantaged. Instead, the intervention seeks to create a more equitable learning environment. In so doing, it achieves a breakthrough that has eluded education researchers and policymakers for decades: a cost-effective intervention that could reliably change teacher practice at scale.

More broadly, this innovative model – which uses a combination of qualitative interviews and survey research to identify a shared value to motivate behavior change – could be replicated to address inequalities in other institutions. This model focuses on creating behavior change among the people who are responsible for carrying out the goals of the institution and have significant discretion about how they do so. Focusing on these “frontline members,” such as doctors and nurses in health care, and police and parole officers in the criminal justice system, has the potential to create more equitable institutions.

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ABOUT THE AUTHORS

Cameron A. Hecht, cameron.hecht@utexas.edu, is a National Science Foundation postdoctoral scholar in the Department of Psychology and the Population Research Center, The University of Texas at Austin and a postdoctoral fellow with the **Behavioral Science and Policy Institute (TxBSPI)**, UT Austin; **Christopher J. Bryan** is an assistant professor of Business, Government, and Society, McCombs School of Business, UT Austin, co-founder and co-director of TxBSPI, and faculty scholar at the Population Research Center; and **David S. Yeager** is Raymond Dickson Centennial Professor of psychology, co-founder of TxBSPI and faculty scholar at the Population Research Center.

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