

Team Members

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Scope and Significance

Academic breadth is the cornerstone of a comprehensive tertiary education. Universities commonly design curricula that expose students to a diversity of disciplines. Many of these required classes, however, lay outside of students’ existing interests causing some to intellectually disengage. Can shifting students’ mindsets about interest facilitate their engagement and achievement in those classes? Some students implicitly believe that interests are inherent and relatively unchangeable (“fixed mindset” or FM), and would greatly benefit from adopting the mindset that interests are developed and evolve over time (“growth mindset” or GM). I propose an *evaluation* of a novel training program that aims to promote a GM, improving student outcomes in multi-disciplinary curricula.

This project has far-reaching educational significance. Using multiple methodologies—laboratory and randomized controlled field experiments—I will evaluate the efficacy of a GM training program to increase interest, motivation, and achievement in topics and courses that lay outside of students’ established interest areas (without impairing outcomes for topics already matching their interests). Moreover, the training will be brief, easy to administer, and highly scalable, making it useful in a variety of educational settings. By being the first to implement such a training, this project could position Singapore as a leader in outstanding, innovative tertiary education.

Approach, Implementation, and Evaluation

The GM training program—which will be adapted from existing mindset trainings—will be a single-session online tutorial that teaches students a GM through a compelling series of tasks that communicate the evolving nature of interests, reinforced by actual statistics and research findings. The training then uses a well-documented persuasion technique to reinforce authentic belief change.

The control training will follow a similar format, but discuss study skills and strategies instead of how interests develop and evolve.

In the proposed research, four studies (plus one pilot) will refine and evaluate the GM training, relative to the control training. First, we will conduct a pilot study of upperclassmen to obtain content (statistics, quotes) for the GM and control training programs. Second, in two lab experiments, we will evaluate the efficacy of the GM (versus control) training on shifting interest mindsets and on multi-disciplinary learning tasks (Studies 1 and 2). Third, I will conduct a year-long evaluation of the training within a multi-disciplinary curriculum at Yale-NUS (Study 4). Incoming freshman will be

randomly assigned to complete either the GM or control training just before matriculating. I will track their interest, motivation, and achievement in classes that mismatch their core interests, relative to classes matching their interests. Finally, I will conduct a semester-long evaluation of the training among incoming freshman at NUS, in order to replicate and generalize the predicted effects of the training to a different student population and learning environment.

Each study represents a key project milestone. The success of the project will be determined by statistical analyses showing that students who completed the GM training acquire a stronger growth rather than fixed mindset and evince increased interest, motivation, and achievement in topics and courses that lay outside of their established interest areas.