

WHAT IS A NUDGE AND HOW CAN IT HELP MORE COLLEGE STUDENTS GRADUATE?

PERSISTENCE + PLUS

College leaders have long known that behavioral and non-academic factors play an important role in students' decisions to leave college. Students feel disengaged, confused or overwhelmed and lack the mindsets and habits for college success. College students develop study plans that they fail to implement, neglect to file for the financial aid to which they are entitled, interpret early challenges as signs that they don't belong in college, and avoid seeking help for their mental health or basic needs due to perceived stigma. What if a nudge could help students change their mindsets and behavior—and reach graduation day?

In areas from public health to financial decision making to civic engagement, social scientists are demonstrating the power of nudges to help people make wiser decisions. Nudges have proven effective in increasing the number of people who get flu vaccines, save for retirement and go to the

polls on election day. In education, as well, nudges are helping more low-income and first-generation students to enroll in college, stay on track and successfully navigate the path to graduation. Across the nation, policymakers and educators are talking about the power of the nudge to proactively support students and make progress on some of education's most relentless problems.

But what makes a good nudge, and how can colleges deploy behavioral strategies well? A good nudge is more than just a text message or a simple reminder to do something. So we use the acronym "SUMS" to remind us that a thoughtfully crafted nudge is truly more than the sum of its parts. In our experience, the best nudges are based on scientific knowledge, unobtrusive to the college student experience, focused on changing students' mindsets over pushing a one-time behavior, and centered on a deep understanding of the college student experience.

SCIENCE-BASED

Leverages proven psychological interventions
Accounts for motivation and self-identity

UNOBTRUSIVE

Embedded in college processes and day-to-day communication
Not coercive, punitive, or patronizing

MINDSETS

Focuses on changing beliefs
Creates long-lasting impact

STUDENT-CENTERED

Suggests appropriate course of action for student success
Designed with students' best interests in mind

In this paper, we describe several behavioral interventions at the core of nudging and illustrate how Persistence Plus successfully uses nudges to

help students develop the mindsets and behaviors for college success.

SOCIAL NORMS

Research has repeatedly found that in ambiguous situations, people follow social norms, behaving based on their perceptions of how others behave. Hotel guests reuse their towels when told that other guests staying in that room have done so¹; residents reduce their household energy use when their utility bills compare their usage to that of their neighbors.² In the college environment, students unsure of the rules of the game often look to peers for guidance. Nudges can harness this peer persuasion by, for instance, removing a perceived stigma around seeking help for financial insecurity.

Some LCCC students miss meals due to \$ but they've found help at the Commodore Cupboard. Do you face this challenge?

We sent nudges such as this one to students at Lorain County Community College in Elyria, Ohio, to not only provide information about the campus food pantry but to also normalize using it for help. The organizers of the Commodore Cupboard saw a marked increase in student usage following delivery of these nudges. We've observed similar upticks at other community colleges in the number of students inquiring about and applying for emergency aid when facing a financial crisis that threatens to derail their educational plans.

IMPLEMENTATION INTENTIONS

To help students follow through on their academic goals and intentions, nudges can prompt them to form plans that include specific details of when and where they will complete a desired behavior. "Implementation intentions" have been shown to increase the likelihood that people get a flu vaccine or vote in an election. For example, David W. Nickerson and Todd Rogers found that asking registered voters in the 2008 presidential primary when and where they planned to vote significantly

increased the likelihood that they would do so.³ Calls that simply encouraged people to vote had no effect, but calls that asked people to mentally map their intentions increased voting among those living alone by 9 percentage points. With these lessons in mind, a good nudge would not just ask college students to set a goal like "study," but guide them toward forming a concrete plan, like studying on Wednesday after biology class in the student center lounge.

There is great tutoring available at LAGCC. When will you take advantage of this resource?

Tomorrow and Thursday

You made a plan to visit the Science Study Center today. Did you?

Yes

As part of a federally funded study on the impact of nudging on college near completers, we used card swipe data from LaGuardia Community College to examine whether nudges such as these could increase utilization of campus resources.⁴ In this randomized control trial, students supported by Persistence Plus spent five times more time using campus resources, with a large part of that difference attributable to increased visits to tutoring. We found similar results in a partnership with the University of Washington-Tacoma in which Persistence Plus used behavioral nudges to support students in online, introductory math courses. Students who received messages asking them to form implementation intentions were five times more likely to visit campus tutoring.

SOCIAL BELONGING

Low-income students, students of color, and others from underrepresented groups often experience stereotype threat—the pervasive worry that any misstep will confirm negative stereotypes about their group.⁵ These students tend to interpret setbacks as evidence that they are outsiders, feeding a mindset that can lead to college withdrawal. Behavioral strategies that combat stereotype threat include nudges that build a growth mindset, ask students to reframe their challenges, foster a sense of belonging in college and share authentic stories of other students who faced and overcame similar challenges. Nudges building on research showing that reframing adversity as common and transient leads to improved academic and health outcomes—especially for African-American students⁶—can help students perceive their setbacks as common stumbles on the way to a degree.

Fitting in can always be a challenge, but you're not alone. How concerned are you about fitting in at Lakeland? (on a 0-5 scale)

4

That's actually pretty normal, but those feelings tend to fade in your 2nd year. What's 1 thing you've found you do have in common with others at Lakeland?

People have the same worries about graduating as I do and we all want to get our degrees

We sent nudges focused on social belonging and issues around registration to over 1,300 community

college students during the summer after their first year of college. This randomized control trial demonstrated that Persistence Plus increased student retention into the second year by 8 percentage points over the control group. Similarly, summer nudging directed at unregistered rising sophomores at the University of Washington-Tacoma has been able to help up to 40% of these students re-enroll with 5 weeks or less to go until the autumn quarter.

EXPRESSIVE WRITING

Recent research has identified expressive writing as a powerful means of alleviating math anxiety and exam anxiety. Our brains assign working memory first and foremost to reducing negative feelings. A student who is anxious about an exam, therefore, loses working memory to dealing with those feelings and cannot focus on their exam. Expressive writing has been shown to reduce anxious thoughts about past events and increase working memory with repeated practice over time. However, given the salience of anxiety immediately before a high-stakes testing situation, writing about those feelings may temporarily inhibit anxious thoughts, thereby freeing up working memory to use on the test itself. Studies have found that 7-10 minutes of expressive writing before an exam appears to eliminate all negative effects of anxiety,⁷ and nudges can easily help students to apply this strategy themselves.

Writing about your feelings for 5 min. before today's algebra exam can reduce anxiety and boost performance. Try it? Pick: Yes, No

Intensive advising programs are helping students on many college campuses succeed. But student support can be expensive and difficult to scale,

and the students who could most benefit do not always participate. Behavioral nudging, in contrast, can be scaled in a cost effective manner, can be tailored for individual students based on student data or real-time responses and doesn't require time of college faculty or staff. By helping students to develop strong academic mindsets and nudging them toward behaviors for success, this approach can complement the work of college advisors and increase their capacity to focus on more complex student interactions.

IMPACT IN EDUCATION

Gold-standard evidence is emerging that nudges are effective in improving college access and completion—particularly for lower-income and first-generation students who lack the prior knowledge and guidance to navigate the complexities along the way. Researchers Benjamin Castleman and Lindsay Page found that nudges sent over text message can help reduce “summer melt”—the phenomenon where graduating high school seniors who have planned to attend a college fail to show up

in the fall. Sending a series of text messages to help students navigate summer deadlines increased the likelihood that they would enroll by 7 percentage points.⁸ Subsequent research revealed that nudging first-year community college students to complete their re-enrollment forms significantly increased not only the likelihood they would return to college, but that they would complete their second year.⁹ Likewise, a series of studies coordinated by ideas42, a behavioral science policy think tank, showed that simple changes to higher education processes and communication strategies can change students' borrowing decisions, motivate visits to tutoring, and increase college retention.¹⁰

Persistence Plus, whose nudges are rooted in the behavioral interventions described in this paper, is seeing its student support model increase college retention as well.

Randomized trials with partners have shown a significant impact on persistence for first-generation college goers, students of color, online learners, STEM students, near completers and returning adults.

RESULTS OF GOLD-STANDARD RESEARCH

NEAR COMPLETERS

Fall-to-spring retention

↑**3PP**

Graduation rates

↑**6PP**

ONLINE STUDENTS

Term completion

↑**10PP**

Re-enrollment

↑**3PP**

FIRST YEAR STEM STUDENTS

Spring-to-fall retention

↑**10PP**

Nudging is one of many strategies from guided pathways to proactive advising that is helping colleges transform how they support students to a degree. Well-designed nudging can help students feel more connected to their institution, more productive as students and more motivated to persist. Ninety percent of students nudged and surveyed at one partner institution said that all new students would

benefit from nudging. As one student shared, “It’s like you can’t really fail, or if you’re thinking about failing, it helps you change your thoughts.” As more colleges adopt nudging strategies to complement their current retention initiatives, they are helping students make the small changes in their behavior that can propel them to a degree.

NUDGING 101: IMPLEMENTING FOR SUCCESS



Rigorous research has shown that well-designed nudging leads to increases in college matriculation and persistence.



Texting does not equal nudging. Texting is one way of communicating with students. High-quality nudging is grounded in behavioral science.



Nudging does not require additional work from advisors or faculty. Research shows that automated and interactive nudging yields results.



Well-designed nudging can be deployed easily with all students but includes prompts tailored for individual students.

ENDNOTES

¹Goldstein, N.J., Cialdini, R.B., & Griskevicius, V. (2008). A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels. *Journal of Consumer Research*, Vol. 35, No. 3, pp. 472-482

²Ayres, I., Raseman, S., & Shih, A. (2009). Evidence from Two Large Field Experiments that Peer Comparison Feedback Can Reduce Residential Energy Usage. NBER Working Paper 15386.

³Nickerson, D.W., & Rogers, T. (2010). Do You Have a Voting Plan?: Implementation Intentions, Voter Turnout, and Organic Plan Making. *Psychological Science*, 21(2), 194-199.

⁴Mabel, Z., Castleman, B., & Bettinger, E. (2017). Finishing the Last Lap: Experimental Evidence on Strategies to Increase College Completion for Students At Risk of Late Departure.

⁵Steele, C.M., & Aronson, J. (1995). Stereotype Threat and the intellectual test performance of African-Americans. *Journal of Personality and Social Psychology*, 69 (5): 797-811

⁶Walton, G.M. & Cohen, G.L. (2011). A Brief Social-Belonging Intervention Improves Academic and Health Outcomes of Minority Students. *Science*; 331 (6023): 1447

⁷Ramirez, G., & Beilock, S. L. (2011). Writing about testing worries boosts exam performance in the classroom. *Science*, 331 (14), 211-213.

⁸Castleman, B. L., & Page, L. C. (2013). Summer nudging: Can personalized text messages and peer mentor outreach increase college going among low-income high school graduates? *EdPolicy Works Working Paper Series*, 9.

⁹Castleman, B.L. & Page, L.C. (2014). Freshman Year Financial Aid Nudges: An Experiment to Increase FAFSA Renewal and College Persistence. Center for Education Policy and Workforce Competitiveness Working Paper No. 28. University of Virginia.

¹⁰Fishbane, A., & Fletcher, E. (2016). Nudging for success: Using behavioral science to improve the postsecondary student journey. *Ideas42.org*.