

# PERSISTENCE + PLUS

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

College administrators 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, they neglect to file for the financial aid to which they are entitled, they interpret low grades or a difficult transition as signs that they don't belong in college, and they avoid seeking academic help due to perceived stigma. What if a nudge could help students change their behavior and mindsets—and reach graduation day?

In areas from public health to personal finance to civic engagement, social scientists are demonstrating the power of nudges in helping 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, the nudge is helping more students, particularly

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 make progress on some of education's most relentless problems.

But what exactly is a nudge? What makes a good nudge, and how can colleges deploy behavioral strategies well? As described by Richard Thaler and Cass Sunstein in the popular book *Nudge*, a nudge delivers a message or structures a choice in a way that encourages people to improve their behaviors yet leaves them free to act<sup>1</sup>. Nudges do not nag or mandate an action, but prompt people to make decisions that are in their best interest. And the most well-designed nudges go beyond reminders, using knowledge of human behavior to motivate the recipient. In this paper, we describe several behavioral interventions at the core of nudging, and illustrate how Persistence Plus uses nudges to help students develop the academic 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 so<sup>2</sup>; residents reduce their household energy use when their utility bills compare their usage to that of their neighbors.<sup>3</sup> In the college environment, students unsure of the rules of the game often look to peers. Nudges can harness this peer persuasion by, for instance, removing a perceived stigma around tutoring.

Most students who visit the tutoring center earn As and Bs. Will you commit to visiting this week?

In a partnership with University of Washington-Tacoma in which Persistence Plus used nudges to support students in introductory math, students who received this message and related ones were five times likelier to visit campus tutoring.

## 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.<sup>4</sup> Calls that simply encouraged voters to vote had no effect, but calls that asked voters to mentally map their intentions increased voting among those living alone by 9 percentage points. Similarly, a

nudge can ask college students not just to set a goal like “study,” but push them to articulate that they will do so on Wednesday after biology class in the library.

Finals are coming up soon. When and where will you study next?

At home on Monday

You made a plan to study today. Did you?

Yes

## SOCIAL BELONGING

Often, low-income students, students of color, and others from underrepresented groups experience stereotype threat—the pervasive worry that any misstep will confirm negative stereotypes about their group. 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 students<sup>5</sup>—can help students perceive their setbacks as common stumbles on the way to a degree.

Advice from a grad: It'd been a while since I was in school, so I was scared at first to ask for help, but finding a tutor really helped improve my grades.

## 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 appears to 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,<sup>6</sup> 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 is expensive and difficult to scale, and the students who could most benefit do not always participate. Behavioral nudging, in contrast, can be scaled with technology 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 graduating high school seniors who have planned to attend a college fail to show up in the fall.

“ NUDGES ARE EFFECTIVE IN IMPROVING COLLEGE ACCESS AND COMPLETION—PARTICULARLY FOR LOWER-INCOME AND FIRST-GENERATION STUDENTS

Castleman and Page found that sending a series of text messages to help students navigate summer deadlines increased the likelihood that they would enroll by 7 percentage points.<sup>7</sup> Subsequent research focused on college persistence revealed that nudging community college freshmen to complete their re-enrollment forms significantly increased not only the likelihood they would return, but that they would complete their sophomore year.<sup>8</sup> Another study led by Eric Bettinger found that low-income students who received simple assistance in completing the FAFSA were more likely both to submit the paperwork and ultimately enroll in college.<sup>9</sup>

Nudging has resulted in gains in early education as well. In a study designed by Susanna Loeb and Benjamin York, parents of preschoolers in San Francisco received texts with simple strategies for developing their children's literacy skills. Parents who received the texts were more likely to engage their children with the home literacy activities, and the children scored significantly higher in literacy than children whose parents had not been nudged.<sup>10</sup>

Persistence Plus, whose nudges are rooted in the behavioral interventions described in this paper, is seeing that its nudging model is increasing college retention as well. At Middlesex Community College, students receiving the messages continued on to the next semester at a rate 7 percentage points higher than the overall cohort. At University of Washington-Tacoma, freshman fall-to-fall persistence increased 6 percentage points in 2015 after implementing Persistence Plus with all entering students. Randomized trials with partners have shown a significant impact on persistence for first-generation college goers, online learners and returning adults.

Nudging is one of many strategies from guided pathways to proactive advising that are 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. 90% 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 of failing, it helps you to 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.

“ IT’S LIKE YOU CAN’T REALLY FAIL, OR IF YOU’RE THINKING OF FAILING, IT HELPS YOU TO CHANGE YOUR THOUGHTS ”

## NUDGING 101: IMPLEMENTING FOR SUCCESS



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



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



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



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

## ENDNOTES

1. Thaler, R. H., & Sunstein, C. R. (2009). *Nudge: Improving decisions about health, wealth, and happiness*. New York: Penguin Books.
2. Goldstein, 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
3. Ayres, 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.
4. Nickerson, 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.
5. Walton, G.M. & Cohen, G.L. (2011). A Brief Social-Belonging Intervention Improves Academic and Health Outcomes of Minority Students. *Science*; 331 (6023): 1447
6. Ramirez, G., & Beilock, S. L. (2011). Writing about testing worries boosts exam performance in the classroom. *Science*, 331 (14), 211-213.
7. Castleman, 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.
8. Castleman, 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.
9. Bettinger, E.P., Terry Long, B., Oreopoulos, P. & Sanbonmatsu, L. (2009.) The Role of Simplification and Information in College Decisions: Results from the H&R Block FAFSA Experiment. NBER Working Paper No. 15361.
10. York, B.N, & Loeb, S. (2014). One Step at a Time: The Effects of an Early Literacy Text Messaging Program for Parents of Preschoolers. NBER Working Paper No. 20659.