PERSISTENCE +PLUS

IMPACT OF THE PERSISTENCE PLUS NUDGING MODEL: **RESULTS FROM EXPERIMENTAL TRIALS**

by Ross E. O'Hara, Ph.D.

Persistence Plus is a personalized support system delivered right into the hands of college students via their mobile phones. By designing and delivering interactive messages to students that instill a sense of belonging in college[1], encourage a growth mindset[2], and connect their education to their personal goals[3], Persistence Plus motivates students to succeed in college. Since bringing the concept of "nudging" to higher education with the mission of raising retention and graduation rates, Persistence Plus has helped tens of thousands of students across the globe toward their goal of earning a college degree. As part of that mission, we have collaborated with partners in higher education to conduct experimental trials of the Persistence Plus model to demonstrate its efficacy across a range of students and institutions.

FIRST-GENERATION SUCCESS

It is well-established that first-generation college students lag behind their peers in college completion rates[4]. For a combination of educational, financial, and psychosocial reasons, many first-generation students need additional support to succeed, especially those enrolled at community colleges. To help these students persist, we partnered with a community college in the Northeast to conduct an experimental trial in collaboration with researchers at New York University. Results showed that Persistence Plus increased overall year-to-year retention among part-time students by 4 percentage points, with an even greater impact among first-generation students. Getting "nudged" over text messaging appeared to impact these students who might otherwise feel rudderless while trying to navigate their way through community college.

ONLINE EDUCATION

Another group of students who can often feel lost in higher education are those attending college online. Online college provides vital access to higher education for working adults and others who need flexibility in their studies, and institutions of every type are increasing their online offerings. But keeping students motivated to finish is a challenge when these programs lack the physical connections found in traditional, brick-and-mortar classroom settings[5]. As recently recognized by a 2017 Effective Practice Award from the Online Learning Consortium, Persistence Plus is a highly effective solution for supporting students learning online.

> RATES OF COMPLETING THE TERM INCREASED BY 10 PERCENTAGE POINTS, AND RE-ENROLLMENT FOR THE NEXT TERM INCREASED BY OVER 3 PERCENTAGE POINTS.

Working with an online university in the United States, the benefits of Persistence Plus could be seen almost immediately. Among newly enrolled students, retention through the university's census date increased by more than 8 percentage points over a randomized control group. That is already a victory in terms of keeping students committed to their goals, but these benefits maintained over time: Rates of completing the term increased by 10 percentage points, and re-enrollment for the following term increased by over 3 percentage points.

These gains were also borne out in research conducted with an international online university that serves predominantly female adults returning to higher education. In our work supporting newly enrolled students seeking a bachelor's degree, Persistence Plus increased retention by between 4 and 9 percentage points, with more pronounced effects among women ages 36 and older and those students with no prior experience in higher education. The findings from both studies provide strong evidence that research-driven, mobile support can help keep online college students on the path to finishing their degree.

PROMOTING STEM SUCCESS

Careers in STEM (Science, Technology, Engineering, and Math) are some of the fastest-growing and most lucrative in the United States[6]. Unfortunately, many students struggle in gatekeeper STEM courses, which can dissuade them from a STEM major or from continuing with college entirely[7]. In collaboration with Jobs for the Future, a non-profit dedicated to ensuring that all lower-income people have the necessary skills to succeed in our economy, we are nudging over 10,000 incoming students at four leading community colleges. Students enrolled in introductory STEM courses are receiving specialized nudges designed for the challenges they face, based on the latest social psychological interventions shown to improve STEM outcomes.

> WE ARE NUDGING OVER 10,000 INCOMING STUDENTS AT FOUR LEADING COMMUNITY COLLEGES

In the pilot phase for this project, we conducted a randomized trial intended to increase fall enrollment among students returning from the previous spring. Over the summer, unenrolled students received nudges to help guide them through the registration process, whereas enrolled students received nudges to foster their connection to their college in order to prevent summer melt. The experiment was a success: fall enrollment increased by 10 percentage points over the control group, with the strongest effects among STEM students and those enrolled in summer courses.

CROSSING THE FINISH LINE

Extra support, however, is necessary for more than just newly enrolled students. Over 40% of students who leave college without a degree do so after their second year[8]. As students approach graduation they face many new challenges, such as dwindling financial aid, increasing work and family responsibilities, anxiety around career planning, and difficulty signing up for the final credits necessary to graduate. However, many college support services focus on incoming students, leaving these "near completers" to figure out these pivotal steps toward graduation on their own. In one federally funded study, we explored how the Persistence Plus model could help these students cross the finish line and earn their degree. This randomized trial involved thousands of students from across the country at both community colleges and four-year universities[9]. Despite a baseline rate of over 90%, our nudging

> INCREASED FALL-TO-SPRING RETENTION AMONG NEAR COMPLETERS BY 3 PERCENTAGE POINTS

intervention increased fall-to-spring retention and graduation rates among near completers by 3 percentage points. Importantly, the impact of Persistence Plus was strongest among those students most at risk for late withdrawal from college. The results of this study also shed light on one process by which Persistence Plus drives these gains. At a large, metropolitan community college, Persistence Plus increased students' use of campus resources, most notably students' time spent in tutoring. By leveraging nudges that norm help-seeking and redefine learning as a growth process, Persistence Plus appears effective in getting students to take advantage of the resources offered by their institution.

LOOKING AHEAD

While these studies provide compelling experimental evidence for the efficacy of the Persistence Plus model in increasing retention rates, our work continues. We continue to enhance our system to provide impactful support for all students and design interventions that effectively target specific populations. Together, these studies build on the burgeoning consensus that a "nudge" can help students achieve their dream of graduating from college.

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