To boost retention at San Francisco State University, we helped students form a different narrative about freshman year, and then supported them with frequent reminders. We saw strong results among a subset of students enrolled in the school’s Metro Academies program.

Reframing our understanding of attrition

At San Francisco State University (SF State), 18% of freshmen leave before the first day of sophomore year. This is a common concern at colleges and universities across the country, especially since we have a limited understanding of why these students aren’t persisting. ideas42 partnered with SF State to shed some light on this issue and identify potential solutions.

Digging into the factors surrounding the freshmen who failed to return for their sophomore year, we found some interesting insights. Most of those students do not end up enrolling at other colleges. Of the 18% of students who left before their second year, seven of those percentage points were students who failed to complete remediation. Due to logistical constraints, we focused on the 11% who were leaving for non-academic reasons. Through our behavioral diagnosis process we were able to discard several hypotheses that represent the “conventional wisdom” about attrition and its remedies, including low financial aid uptake and a shortage of on-campus housing. Because behavioral science often points to less intuitive motivators, we formulated several new hypotheses stemming from the ideas of social belonging and mental models.

We discovered that very early in their school experience, students may create disempowering narratives and perceptions about themselves, their abilities, and their school community. Many students worried about whether they were actually “college material,” and had a hard time finding their niche in school. Negative identities, fears around belonging, and the lack of positive feedback were compounded by students’ feelings of disconnect-edness and self-doubt when they struggled. This confluence of psychological factors often pushed them away from school entirely. To help these students, we wanted to redefine those early perceptions of themselves and their context.

Reaching students throughout the semester

We designed an intervention built around a low-cost, scalable digital messaging campaign. The design addressed threats to identity and situated struggle as a normal experience for all students. It also encouraged students to become more engaged with campus communities, persist through difficulties, and build plausible paths to overcome challenges.

Our work was delivered in three components. The first was a 3.5-minute video featuring current and former students from a wide variety of backgrounds discussing their struggles and worries and how they overcame them. The second component was a brief questionnaire delivered immediately after the video ended.
It prompted students to reflect on the video in their own words and to develop plans for freshman year. The third component was a series of 11 SMS and email messages that were based on individual questionnaire responses. These messages, sent once a month throughout the school year, reinforced the video’s message and reminded students of their own goals, aspirations, and plans. Some messages included reminders [e.g., to complete the Free Application for Federal Student Aid (FAFSA)], and others included motivating prompts (e.g., a message to the student’s future self) - often in students’ own words.

To test the efficacy of this messaging campaign, we staged a randomized controlled trial among all new SF State students in Fall 2014 (6,406 students), stratifying on the subset of students enrolled in Metro Academies learning communities (302 students). The intervention launched in August 2014 and continued throughout the 2014-15 school year. We found significant outcome differences among students in the Metro Academies program.

**A New Sense of Belonging**

At the beginning of the next year, we were able to report very promising results among students enrolled in the Metro Academies College Success Program (Metro) who received our intervention. These students, who are generally first generation, low-income, and belong to groups that are underrepresented in colleges across the U.S., are given intensive supports in their first two years. We believe the intervention intensified the positive effects of Metro learning communities, leading to a 10% higher retention rate (from 82.5% to 91%)² and 7% higher GPA (from 2.70 to 2.88)³ among treated Metro students compared to the control group. We also saw a positive trend toward completing more credits among treated Metro students (from 19.9 to 21.4).⁴

### Metro Academies Students: Persistence to Sophomore Year

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>91%*</td>
<td>83%</td>
</tr>
</tbody>
</table>

+10%

### Metro Academies Students: Average GPA

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.88†</td>
<td>2.7</td>
</tr>
</tbody>
</table>

† = significant at 90% level  * = significant at 95% level
The intervention was also particularly effective among all underrepresented students, who had higher GPAs (from 2.73 to 2.79) relative to the control group and trended toward higher retention and completing more credits. Ratcheting up the efficacy of programs like these, which offer support to students at risk of not graduating, would be an important contribution to the field, especially if that can be achieved in a low-touch, low-cost way. At the scale of the entire incoming freshman class of Metro students at SF State, our intervention would cost $470 for each additional student who would persist to sophomore year.

**Beyond San Francisco State**

Our intervention had the strongest effect among Metro students. The interaction of our intervention with the sustained support Metro students receive, including access to a community and personalized help, may account for lower attrition among treated Metro students. These results suggest that sustained, repeated reminders are critical to internalizing and acting on the messages communicated in the video we created. Furthermore, the reminders and messaging may also increase the efficacy of existing academic support programs. Our intent is to identify opportunities to replicate these findings at other universities that have a similar opportunity to cost-effectively ratchet up the value and impact of existing academic support services for students at risk of not graduating.

**Notes**

1. These students failed to complete remediation in one year as required by the California State University Board of Trustees policy
2. This increase of 8.5 percentage points in persistence among Metro students is statistically significant (p=0.03)
3. This 7% increase in GPA among Metro students is statistically significant (p=0.10)
4. This 8% increase in credits among Metro students is nonsignificant (p=0.13)
5. This 2.2% increase in GPA among all minorities is statistically significant (p=0.08)