Stanford study shows efficacy of team-based online learning

RESEARCH BRIEF
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According to Eesley, learners in teams on NovoEd are 16x more likely to complete their course
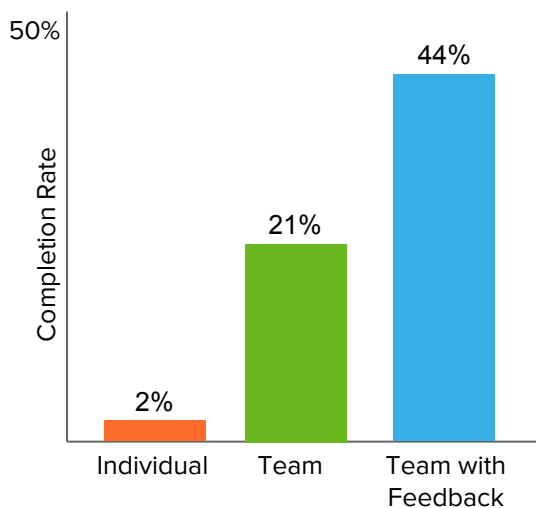
Learners in teams are more engaged

Research by Stanford Professor Chuck Eesley shows that collaboration in online classes significantly improves learner engagement and course completion.

Students who worked in teams were 16 times as likely to pass the course. As a baseline, of the 23,577 students working individually, only 2% (501) passed the course. However, 32% of all students on teams graduated - 1500% higher. Of this, 21% of students working in teams without mentors and 44% of students in teams with mentors passed (see Figure 1).

Similarly, students in teams were more engaged in the community and contributed more to class discussions and peer evaluations. As one data point, for example, students on teams accessed the course five times as often. On average, learners working alone logged in once per week, but students in teams (no mentors) signed in 4.9 times per week, and students in teams with mentors signed in 5.5 times per week (see Figure 2).

Figure 1. Graduation Rate by Cohort

16x

Students on teams were 16X
more likely to pass the course

5x

Students in teams signed in 5
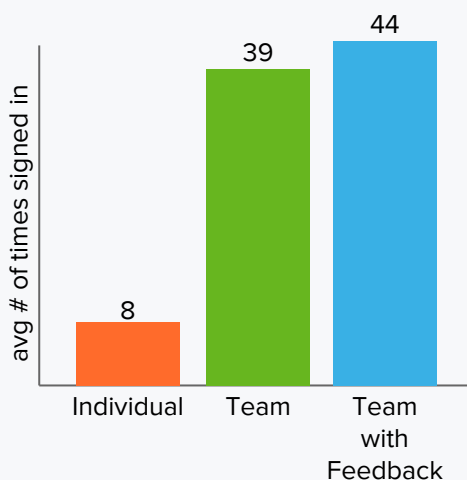times as often as individuals

44%

of all enrolled students with
mentors passed the course

13%

Adding a mentor alone
increased logins by 13%

Figure 2. Engagement by Cohort

Community and social engagement is the key

The completion rate of individuals working alone resembles that of most free, open courses on traditional learning platforms. It's clear that basic "social features," such as discussion boards, messaging, and social network sharing, are insufficient to drive higher engagement.

The benefit of social learning comes when students feel responsible as part of a learning community. NovoEd achieves this with a combination of team-based assignments, mentorship, reputation systems, identity transparency, community moderation, and more. This "felt accountability" is a powerful intrinsic motivator that is effective at increasing course persistence and learning outcomes.

NovoEd is built on a social fabric that engenders community, social relatedness, and connectedness to intrinsically motivate learners. This drives NovoEd's significantly higher engagement and completion rates.

Context and research methodology

This research was conducted in 2014 by Chuck Eesley, Assistant Professor of Management Science & Engineering at Stanford University. The data is from 26,248 students in Technology Entrepreneurship, an eight-week free course. The analysis utilizes a multivariate regression format, with dependent variables of various engagement and satisfaction measures, independent variables including collaboration type, and control variables for demographics, engagement level, and more.

Professor Chuck Eesley