Playing to Learn

Our Digital Equity in Education project at USC’s Pullias Center for Higher Education started with a simple question: Could we make the process of applying to college and for financial aid more engaging?

Through our work at USC with students in a face-to-face mentoring program, we understood that many qualified low-income and/or first generation students were slipping through the cracks when it came time to apply to college. These were students who had done well in school and had met college requirements, but who lacked adequate support — at home and/or at school — to successfully complete the college preparation and application processes.

We wondered if we could provide that support to students in a fun and effective format.

Thus the Digital Equity in Education project began. After recognizing that traditional approaches were not only cost-prohibitive, but also not substantially moving the needle on college outcomes, we launched an innovative approach to meet students where they were increasingly spending time: in tech and game spaces. And through a partnership with USC’s Game Innovation Lab, we created games that educated high school students about college-going strategies, from understanding financial aid opportunities to managing time for college preparation activities.

From the inception of the project, we have worked closely with students and practitioners to understand how the game and gamification strategies affected students’ college-going behaviors.
Improving College Access Through Digital Tools

Learning to Play

2009

The Pullias Center and USC’s Game Innovation Lab partner to create a series of games.

Initial funding from the Office of the Provost at USC

2011

We develop Application Crunch, a card game, and start researching game play in Los Angeles-area classrooms.

Grant funding from TG and Albert & Rosalinde Gilbert Foundation

2012

We go digital with Mission: Admission, an online game that gives players college-going information and strategies.

Grant funding from the US Department of Education Institute for Education Science (grant #R305A110288) and the Bill & Melinda Gates Foundation

2015

We join forces with the nonprofit Get Schooled, embed the game within a gamified online platform, and expand dissemination of the digital tools to schools across California.

2015-2019

We study the impact of the Mission: Admission Challenge with a randomized controlled trial.

Grant funding from the US Department of Education’s Fund for the Improvement of Postsecondary Education First in the World Program (grant #P116F140097)
Playing for Real

What started as a role-playing game about college applications expanded to include a robust online campaign called the Mission: Admission Challenge. But would online engagement translate to real life action?

We had an inkling it would, since our findings from prior studies illustrated that if students played the game several times, their:

- understanding of college concepts increased
- game play strategies that mirrored college application strategies, such as submitting the Free Application for Federal Student Aid (FAFSA) on time, improved

In order to assess the effects of the Mission: Admission Challenge on actual student outcomes, we moved from a local investigation with small groups of high school students to a randomized controlled trial in schools across the state of California. The California Student Aid Commission (CSAC) served as key data partner and several of CSAC’s Cal-SOAP programs assisted in school recruitment.

By randomly assigning similar schools to participate in the Mission: Admission Challenge or to serve as a control, we measured the unique impact of the Challenge on students’

- FAFSA/California Dream Act (CADA) on-time submission rates college enrollment rates
Since 2015, the Mission: Admission Challenge has engaged:

- 30,317 CA students in
- 72 high schools in
- 29 school districts

Total # of Get Schooled activities completed: **601,855**

Get Schooled’s approach is to empower and engage young people through a digital platform that includes texting and gamification – and a recipe they call ‘sizzle and substance.’

Through the Pullias Center and Get Schooled’s collaboration, students accessed college and financial aid support through articles, videos, games, quizzes, discussion boards, and online badges.

Get Schooled’s gamified online platform incentivized student engagement through prizes to individuals and schools.
Measuring Impact

Participating in the Mission: Admission Challenge had a positive impact.

Over the course of the study, schools that implemented the Challenge saw an additional 5% boost in their FAFSA/CADA application completion rates compared to schools that did not participate, a statistically significant finding.

A similar trend was found with college enrollment rates where rates increased by an additional 4% in participating schools compared to schools in the control group.

FAFSA/CADA Application Rates Increased More in Schools Participating in the Challenge

![Diagram showing FAFSA/CADA application rates](image)

**FAFSA/CADA Application Rates Increased More in Schools Participating in the Challenge**

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<thead>
<tr>
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<th>Challenge schools (mean)</th>
<th>Control schools (mean)</th>
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<tbody>
<tr>
<td><strong>100%</strong></td>
<td>65% (2015)</td>
<td>68% (2015)</td>
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<tr>
<td><strong>7%</strong></td>
<td>72% (2017)</td>
<td>70% (2017)</td>
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<tr>
<td><strong>P</strong> = 0.02</td>
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College Enrollment Rates Increased More in Schools Participating in the Challenge

![Diagram showing college enrollment rates](image)

**College Enrollment Rates Increased More in Schools Participating in the Challenge**

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<tr>
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<th>Challenge schools (mean)</th>
<th>Control schools (mean)</th>
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<tbody>
<tr>
<td><strong>100%</strong></td>
<td>27% (2015)</td>
<td>28% (2015)</td>
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<tr>
<td><strong>9%</strong></td>
<td>36% (2017)</td>
<td>33% (2017)</td>
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<tr>
<td><strong>P</strong> = 0.20</td>
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**As measured by students who were paid a Cal Grant award by the California Student Aid Commission.**
Measuring Implementation

A key aspect of our research included longitudinal mixed methods data collection at participating treatment schools. Findings highlighted student and practitioner reactions to the digital tool as well as implementation strategies and challenges.

Reactions to the digital campaign varied. Where successful, practitioners and students valued the fun, easily accessible approach that amplified current efforts at school sites. Without exception, hybrid approaches (digital and analog) performed better than approaches that solely relied on digital outreach.

Was the Challenge worth your time?

COLLEGE COUNSELOR
“It definitely enlightened the kids. It was very valuable for [first year students] because they don’t have as much exposure to information about college. We really hammer it down for juniors and seniors. It was nice; it was pop-culture.”

STUDENTS
“Playing the game gave me an opportunity to understand how college is without it actually affecting my life if I didn’t know what to do.”

ADMINISTRATOR
“It supported a movement that we have been fomenting for a few years at our school, that college is a realistic option for minority students of low-income status.”

STUDENTS
“Was the Challenge worth your time? The game helped me realize the importance of turning in applications early and also requesting recommendation letters much earlier than the due date of the application.”

STUDENTS
“Was the Challenge worth your time? You get exposure to college and, once you get to junior year, it becomes a reality. You get ideas from the game, but you have to go through all things in reality. It provided a real-life timeline. Doing both versions was helpful.”

STUDENTS
“Was the Challenge worth your time? Yes, the challenge was worth my time because while racking up points and getting sweet prizes, I also learned a lot about college admissions and applications.”
The Digital Equity in Education team at the Pullias Center continues to expand its reach. In May 2018, we received a grant from ECMC Foundation to adapt the Mission: Admission Challenge into a digital tool to help improve first-year persistence rates at California State University, Dominguez Hills. Pullias scholars, in partnership with the nonprofit Get Schooled, worked with CSUDH to design, pilot and evaluate the impact of the digital tool on educational outcomes. Initial findings show a positive effect on units completed, GPA and spring semester enrollment for students who engaged with the tool.

The approach is designed around a digital ecosystem with three components:

1. An online portal with tailored content about connecting with the campus, managing financial aid, engaging in self-care and studying for finals.
2. A 1:1 textline connecting CSUDH students with guidance experts.
3. Gamification strategies to incentivize engagement with the digital approach.
Our research shows that digital tools have potential to improve college access and success. We’ve identified effective strategies for digital access and impact—as well as significant barriers that can prevent successful implementation of these tools.

Moving forward, we seek to partner with forward-thinking schools, organizations and grantors to investigate:

- access and equity across all student groups—and for unique subpopulations (e.g. rural students, students in foster care)
- scalability
- implementation
- hybrid approaches (i.e. recommendations for schools to integrate digital and analog approaches)
- best practices across postsecondary institutions and nonprofits working in these spaces
Improving College Access Through Digital Tools

Broadcasting Out

The Digital Equity in Education webpage houses a variety of resources for educators and practitioners interested in employing digital tools for college access and success.

pullias.usc.edu/digitalequity
About the Pullias Center for Higher Education

One of the world’s leading research centers on higher education, the Pullias Center of Higher Education at the USC Rossier School of Education advances innovative, scalable solutions to improve college outcomes for underserved students and to enhance the performance of postsecondary institutions.

The mission of the Pullias Center is to bring a multidisciplinary perspective to complex social, political, and economic issues in higher education. The Center is currently engaged in research projects to improve access and success outcomes for low-income, first generation students, improve the performance of postsecondary institutions, assess the role of contingent faculty, understand how colleges can undergo reform in order to increase their effectiveness, analyze emerging organizational forms such as for-profit institutions, and assess the educational trajectories of community college students.

The Digital Equity in Education team at the Pullias Center includes:
Zoë B. Corwin, Tattiya Maruco, Suneal Kolluri, Michael Lanford, Maria Romero-Morales, Christine Rocha, and William G. Tierney with previous collaboration from Samantha Bernstein, Carlos Galan, Amanda Ochsner and Antar Tichavakunda.

Project Lead

Zoë B. Corwin currently directs the Digital Equity in Education project for the Pullias Center. Her research focuses on college preparation programs and access to financial aid for low-income and minoritized students, college pathways for foster youth, the role of social media and games in postsecondary access and completion and the intersection of skateboarding, schools and society. She is co-editor of Diversifying Digital Learning: Online Literacy and Educational Opportunity; Postsecondary Play: The Role of Games and Social Media in Higher Education and Preparing for College: Nine elements of effective outreach. Corwin has created a variety of resources for practitioners outlining effective college preparation and success strategies.

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