LAUNCHING THE MISSION ADMISSION CHALLENGE

Pullias Center for Higher Education

AUGUST 2016

Conceptualizing the Project

Zoë B. Corwin & William G. Tierney

To launch a shuttle takes decades of logistical planning, development, and problem solving. Research seldom allows for such thorough preparation prior to launch. In our case, however, launching the *Mission: Admission Challenge* was the result of a multi-year and multi-faceted development and research process. In 2009, with seed funding from USC's Office of the Provost, researchers from USC's Pullias Center of Higher Education and game designers from USC's Game Innovation Lab started a journey to create game-based resources to engage high school students from low-income and underrepresented backgrounds in learning about college. The goal of the project was to meet students where they spend time -- in game and social media spaces -- and teach them concepts and skills to bolster college-going rates in the United States. With funding from the U.S. Department of Education's Institute of Education Sciences [R305A110288], the Bill & Melinda Gates Foundation, TG, and the Rosalinde and Arthur Gilbert Foundation, the project grew to include four games and robust research on the effects of game play on college knowledge and college-going efficacy.

Research findings clearly indicated that the games had a positive effect on learning and efficacy, but could not make any claims on actual college outcomes. In other words, we could show that a student *learned* the value of applying for FAFSA through game play, but we could not show that game play affected actual FAFSA completion rates.

In 2014, the Pullias Center was awarded a $3.2 Million grant from the U.S. Department of Education's Fund for the Improvement of Postsecondary Education First in the World (FITW) program to conduct a random-control trial to assess the effects of game play on FAFSA and college application completion and college enrollment. In designing the grant, we drew from previous lessons learned and conceptualized the project to involve the following strategic partners who complemented the research and outreach work of Pullias Center:

- USC Rossier School of Education -- quantitative research analysts
- USC's Game Innovation Lab -- game designers
- Get Schooled Foundation -- social media experts
- California Student Aid Commission and UC Merced's Center for Education Partnerships -- policy-oriented practitioners and data analysts
- Augenblick, Palaich, and Associates -- outside evaluators

A detailed account of these partner groups can be found in our *Improving Access to College through Games, Technology, and Social Media* monograph.

THE PROJECT INVOLVES FIVE MAIN PHASES:

2014-2015	2015-2016	2016-2017	2017-2018	2018
Preparation for the field	*Launch of game tools at treatment schools & coordinated research activities*	*Second dose of treatment & second round of research activities*	*Wide-scale implementation of game tools at all participating schools*	*Analysis & dissemination of findings*

THE PROJECT ASSESSES THE FOLLOWING OUTCOMES:

SHORT-TERM	LONG-TERM
• Increased college-going efficacy • Improved college knowledge • Increased motivation for college preparatory activities	• Increased rates of FAFSA completion • Increased rates of Cal Grant verification • Increased college enrollment • Improved freshman year persistence

At the time of writing of this monograph, we have completed the first two phases of the project. In what follows, project collaborators share an overview of activities conducted and lessons learned from the first two years of the grant. Our intent is to provide readers with insights into the process of conceptualizing and implementing a large-scale practitioner-oriented research project.

Collaborating

Amanda Ochsner

The USC Pullias Center is devoted to conducting research and developing practices that lead to improved post-secondary pathways for underserved and low-income youth. Our research team is comprised of expert scholars and experienced staff whose work is known and respected locally, nationally, and internationally. Even with a large team, *Mission: Admission* is an ambitious research project, so the Center invested in developing collaborations with key partner groups. Making these connections allowed our USC team to leverage existing networks of resources and build new networks of expertise. These collaborations enhanced various aspects of the project from designing rigorous research activities to engaging students to tracking FAFSA completion and college enrollment.

At its core, the *Mission: Admission* project is about forging connections: connecting researchers with college counselors; connecting teachers with resources; connecting students with incentives for learning about college and financial aid. Dozens of people from a variety of organizations have been involved in making the *Mission: Admission Challenge* happen. Design and development, sharing ideas, and keeping everyone updated takes an intricate communications strategy. Listed below are the platforms and strategies we used for keeping everyone connected, which also allowed for recording the R & D process in systemic, observable ways.

INTERNAL COMMUNICATION:

- Frequent email updates
- Person-to-person interactions and meetings on the USC campus
- Weekly research team meetings
- Monthly partner call meetings
- Shared Spreadsheets on Google Docs
- Collaborative threads on Basecamp (online project management tool)
- Instant messaging on Slack
- Shared research data on *Dedoose* (qualitative research analysis tool)

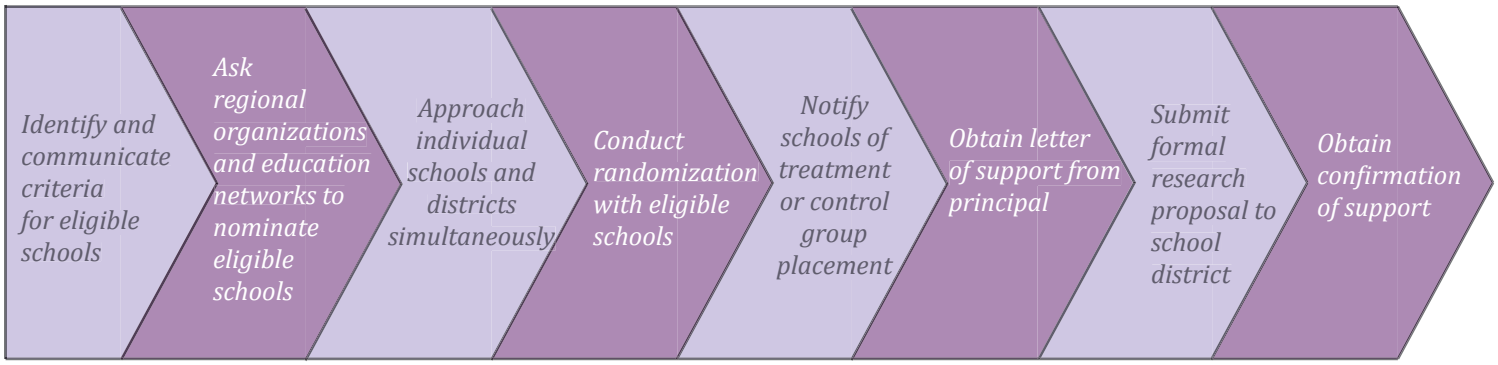
EXTERNAL COMMUNICATION:

- Frequent visits to participating schools
- Presentations at school faculty meetings
- Webinars for schools to learn about the game and *Challenge*
- Online platform for teachers
- Online portal for students
- Posters and fliers to promote the project
- Weekly email newsletters from Get Schooled

Establishing Relationships with Schools

Tattiya Maruco

Once the project was fully conceptualized the strength of implementation depended on participation from schools. Connecting with key individuals at school sites who would champion the goals of the project and facilitate research and implementation logistics was critical. Recruiting schools entailed significantly more time and maneuvering than we had anticipated and included these steps:



Once we had recruited schools, transitioning to research activities was an active and multi-faceted process involving a team of outreach and research staff. We have learned that effective outreach strategies include:

Prepare outreach communication materials in advance.

- Prepare standardized language that summarizes the research and project goals in one sentence, one paragraph, one page, and 10-minute presentations for a general audience.
- Disseminate standardized outreach materials (e.g., introduction emails, phone scripts) for consistency of messaging to schools

Start early. Securing approval to conduct research with districts ranged from 2 weeks to over 3 months

Utilize connections. Recognize the benefits of connecting with existing champions in the K-16 education field and build upon credible, established working relationships in order to amplify results.

Cultivate and empower champions. The project was most seamlessly launched and sustained at schools with a site contact who:

- Believed in the broader benefits of research to the field.
- Understood how their contribution affected the project.
- Could activate resources to sustain momentum.
- Was creative and took initiative.

While we cannot anticipate every issue that will come up, a champion will respond to challenges head-on with innovation and more importantly, take ownership of their contribution to the overall process.

Developing the Game

Sean Bouchard & Elizabeth Swensen

Adapting a piece of software for new platforms and contexts is always an exciting challenge. In 2012, we designed *Mission: Admission* to not only fit specifically into the Facebook interface, but also to fit within the sociality of the Facebook platform. For the FITW grant, we moved the game off of Facebook to make it more easily accessible in schools.

Moving off of Facebook and onto tablets and browsers forced us to reconsider gameplay and interface features to better take advantage of the affordances of the new platforms. Similarly, we needed to account for the absences of or reimagine some features we lost in the move from a social media platform.

This study was also an opportunity to tackle larger gameplay systems changes based on player and teacher feedback and on data collected in our initial pilot study of the game.

The below images illustrate updates to the game aesthetic.

OLD INTERFACE

NEW INTERFACE

OVERVIEW OF REDESIGN:

Review & Recalibrate	We started with identifying parts of the old game design we wanted to update. For example, mechanics around essay writing were unnecessarily complicated, and we wanted to simplify the way players used them to apply to colleges and for scholarships.
Redesign	The user Interface (UI) of the game needed the most changes, both in terms of art and functionality to better match modern games of similar types. We ideated on a number of versions of the new UI until we found a cohesive layout and style that also complemented the game's functionality.
Look & Feel	We brought on an artist to unify the "look and feel" of various objects and characters in the game to match the new UI and create visual cohesion.
Rebuild	We rebuilt the entire game in a new engine. Documenting how the gameplay systems worked and referring to design documentation from the first version helped guide this process. We chose the Unity3D game engine for its ability to publish to multiple platforms.
Playtest & Iterate	Multiple platforms meant a great deal of playtesting, both for the larger gameplay changes but also for quality assurance testing. In this stage, we looked for bugs and tested each of the new publishing formats.

Changing engines was an opportunity to make important gameplay changes, but it was also a major undertaking, especially with regards to features related to the animation system. There were quirks of the old engine that needed to be translated in order to play well with the quirks of the new engine. As we look to the future, we are hopeful that we will be able to secure additional funding to transport the game to smartphones.

Implementing in the Intervention Schools

Suneal Kolluri

The key to a successful game-based intervention is buy-in from students and staff at the school sites. Forcing an intervention upon a school does nothing to demonstrate the intervention's capacity to meaningfully impact schools on a broader scale. An intervention must thus be able to attract teachers, counselors, and students and require little micromanaging by the research team. A "low-touch" intervention must be simple to implement, geared towards outcomes valued by the school, and ideally should also be fun.

When interacting with schools, we emphasized simplicity, potential outcomes, and the playful nature of the project. Couching the intervention within its capacity to be enjoyable for students helped school leaders envision a resource on college-going that deviated from the more tedious informational materials typical of the college application process. We engaged principals and counselors in "college culture interviews" where we asked questions about each school's college-going culture to identify ways that gameplay could support their current practices.

We also reached out to teachers during staff meetings. Connecting with teachers was valuable since they were frequently the point people who would introduce the project to students. We informed them that we intended that the game be played for only one class period – ideally during a "homeroom" or "advisory" class that did not interfere with core content – and explained that the game was designed to motivate students to play on their own time. Various school stakeholders played different roles in ensuring the successful implementation of the project.

PROJECT PARTNERS AND ROLES

KEY PLAYERS	ROLES
Principals	• Approved study • Delegated site contacts • Facilitated district approval
Site Contact (usually college counselor)	• Coordinated *Challenge* logistics • Communicated with teachers • Trained student ambassadors • Acted as liaison to USC
IT Lead	• Prepared technology prior to project launch • Troubleshooted
Teachers	• Facilitated students' interaction with *Challenge* tools • Provided feedback on project
Student Ambassadors	• Encouraged participation among peers • Participated in research focus group
Students	• Participated in *Challenge* by play game using Get Schooled site and compelting research activities

LESSONS LEARNED

Teachers were given a clear script to read to their students on launch day. Ambassadors and the counselors worked closely to promote the game. Some schools held assemblies on college going when they introduced the *Challenge*; others devoted full days to college-themed activities in conjunction with the launch. This level of commitment did a great deal towards building the momentum necessary to motivate gameplay for juniors at a school site.

At several sites, however, momentum was stalled when buy-in failed to materialize or died out among staff or students. At some schools, adequate buy-in was never achieved, and there was no staff member to spearhead gameplay. At others, enthusiastic counselors were unable to garner support from teachers who did not understand the game or its objectives. Largely, the success of the intervention depended on sustained buy-in from staff and students who saw the game as a simple and engaging way to learn about college.

Incentivizing Student and School Engagement

Fiona Yung

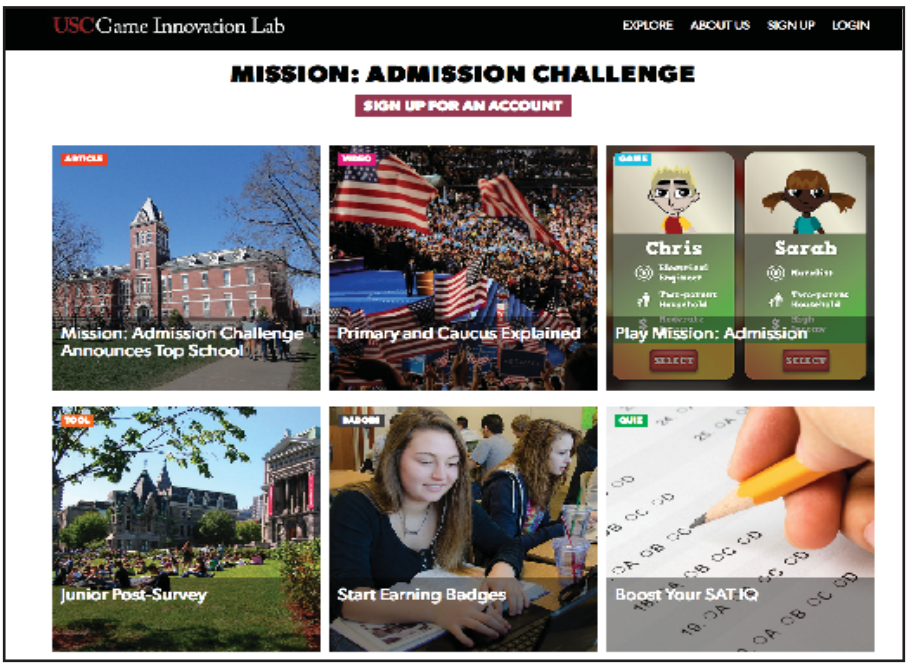
To encourage student, educator and school engagement, the *Mission: Admission Challenge* utilized gamification, game play, and a school-wide incentive structure.

There were many layers of gamification and incentives built into the *Mission: Admission Challenge*, the first layer being the *Mission: Admission Challenge* itself: a competition between 30 high schools. All students completed college knowledge activities online. Additionally, juniors played the *Mission: Admission* game, and seniors completed the FAFSA and California Dream Act application. A public leaderboard tracked each school's progress in these point-earning categories and drove competition between schools. The big prize at stake? A celebrity event, which got both students and educators excited about competing in the *Challenge*.

Gamification applies game mechanics and design elements to non-game contexts to engage and motivate people to achieve goals. This project uses gamification to make learning about college fun.

While big prizes can motivate engagement, Get Schooled has found that it is also important to layer in accessible prizes that encourage schools to continue their progress – especially if it appears they are not in contention for the grand prize. Without these attainable rewards, schools that start the *Mission: Admission Challenge* late or cannot build momentum in the beginning may get discouraged with their progress on the leaderboard. Students and staff may give up before they build the systems to find success. We consequently instituted a $500 grant prize for every school that earned at least 300 out of 500 points in the *Mission: Admission Challenge*. Students could also earn prizes for themselves by completing online college knowledge activities for points, which they could cash out for prizes. These Reward Store prizes were obtainable at all point levels to target beginners and highly engaged students.

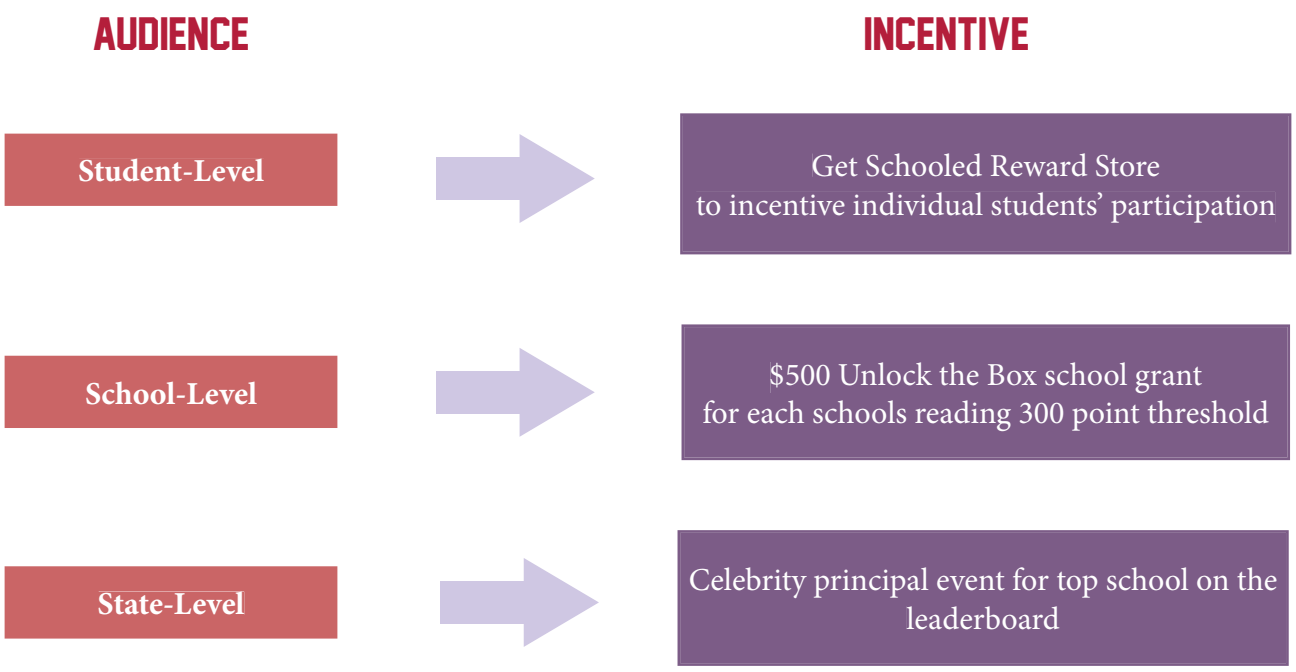
MISSION ADMISSION CHALLENGE STUDENT PORTAL WEBSITE



REFLECTIONS ON INCENTIVES

The efficacy of the *Mission: Admission Challenge* incentives varied and evaluation is underway to determine how these incentives can be modified to encourage even greater school and student engagement.

- A grand prize, such as a celebrity celebration event, gives schools and students an opportunity to earn an extraordinary experience. Schools at the top of the leader board were excited about the prize, and rumors were generated throughout the *Mission: Admission Challenge* on the identity of the celebrity. As we move into the second round of the *Challenge*, we are reconsidering whether resources invested into this prize might be better allocated across more schools.
- Schools were offered an opportunity to "unlock" a $500 school grant. This incentive piqued educators' interest, but with the many components to earning points and the technology access challenges many schools faced, setting the bar at 300 points might have been too high for most schools to find the prize accessible and motivating.
- Midway through the *Challenge*, we instituted a $5 gift card incentive for students, tied directly to *Mission: Admission* game play. This prize resulted in a small increase in game play. In future rounds, this accessible student incentive will be offered at the start of the *Challenge* and will be highly promoted throughout the *Challenge*.
- Reward Store prizes appeared to incentivize students to participate in the online college knowledge activities. Even for schools that had low participation with the *Mission: Admission* game, students were engaged in the online activities, and in many schools, completed them in high numbers.



Researching -- Quantitative

Robert Danielson

In essence, quantitative research seeks to take a concept that we can reliably observe – say, learning or motivation or engagement – and translate that concept into something that we can reliably measure – say with a test or a questionnaire or a rubric. We built a number of quantitative measures for this project. Some were rather easy to adapt – like our measure of self-efficacy. This is because the concept of self-efficacy is fairly straightforward – one's belief that they can reliably perform an action to achieve a goal. Statements like, "I can run a mile in under 7 minutes" or "I can complete the FAFSA" are good examples of this. Others were more difficult – like our measures for learning or culture. This is because these concepts are rather nebulous – what are the things that one needs to know to get into college? What aspects of a school environment count as college-going culture? And how do we measure this?

OUR QUANTITATIVE PROCESS

1 Assemble a solid research team. Research is a team sport, so we convened a team with varied expertise. A good team is comprised of passionate people who see the world from very different positions. We bounced ideas off one another and found assumptions that we may not have realized we were making. For example, doesn't everyone know what should go into a letter of recommendation? (Answer: no).

2 Get to know the project. Quantitative team members were all new contributors to the project. Initial project steps entailed us reflecting back on our experiences getting into college – what did we know, and how did we know it? Who told us what, and what did we struggle to learn? What were some of the surprises along the way? We also projected into the future – what do students need to know now, and how has the college landscape changed since our admission process? We checked the extant literature, discovered what had already been written on the topic, and cited sources.

3 Write it down! While brainstorming, we wrote everything down – everywhere. Whiteboards, notebooks, Google Docs, and project management software (in our case we used Basecamp). It didn't matter if the idea didn't go anywhere. We recognized that an idea that didn't pan out might inspire a colleague. We also acknowledged that this facet of research entailed a creative process, so we didn't stifle an idea before it had a chance to bloom.

4 Weed out ideas. Once we had generated a critical mass of ideas for quantitative measures, we narrowed down the idea pool. As a group, we discussed, debated, and voted on our favorite questions. Most items were cut, and others we combined. Very few items made it through this intellectual gauntlet completely unscathed. When prioritizing questions, we also kept in mind that target audience comes with inherent constraints (for us, high school students' attention spans and teachers' class time).

5 Pilot the protocol - content. After drafting an initial protocol, we piloted the fledgling questionnaire. We observed students as they filled out the surveys to see if the wording of a question would cause questions or complaints. We also examined student responses from the back-end by running item analyses and generating sample reports. These approaches gave us insight into questions that were too easy, or too hard. We concluded this phase by modifying the survey based on our analyses, and collaborative discussion.

6 Retest the protocol - mechanics. With the final version of the online survey completed through Qualtrics, we then tried to break it. What happens if a respondent skips a question? Or enters a bunch of words into a field asking for numbers only? If asked to write comments, how many words can be entered until the survey cuts the response off? During this stage, we documented and fixed problems before the survey went online "for real."

7 Prepare for survey administration. Prior to completing the survey, we worked with school site contacts to ensure that all juniors at each school would be programmed into a computer lab (or laptop cart) in order to guarantee a high survey response rate. Schools were given a set timeframe for students to take pre- and post-surveys; survey completion was incentivized through the larger *Mission: Admission Challenge*.

8 Administer! A note of caution here – no instrument is perfect. But much like a soufflé in an oven or crossing the river on horseback, once you start, there is no turning back.

We are now in the process of analyzing data. Stay tuned.

Researching -- Qualitative

Laurel Felt & Amanda Ochsner

Qualitative research can help us more deeply understand the people and phenomena that we study. The word "qualitative" acknowledges our interest in the quality, or nature, of lived experiences. Qualitative researchers probe beneath the surface, seeking to learn how people think and feel. The methods of qualitative research are similar to those of investigative journalism; practitioners conduct one-on-one interviews, focus group discussions, and observations (usually participating or embedding within a community of interest for an extended period of time). Qualitative researchers also ask open-ended survey questions and collect artifacts (such as artwork and writing produced by community members).

OUR QUALITATIVE PROCESS

1 Assemble the team. As was the case with the quantitative process, our first step to doing solid qualitative research was to assemble a team of researchers to document a nuanced understanding of the college-going cultures and digital landscapes of participating schools. Our qualitative team consists of a diverse group of professors, postdoctoral researchers, graduate student research assistants, outreach staff, and a data savvy project manager.

2 Prepare for research. The first months of the qualitative process were spent in preparation for entering the research field. We read about interviewing strategies and crafted interview protocols. Since some members of our research team were more experienced with qualitative research than others, we read and talked about the core assumptions of qualitative methodologies and explored interviewing strategies. We also drafted and revised interview protocols.

3 Conduct in-take interviews. To better understand the college-going culture at school sites, we conducted interviews with a counselor or administrator at each of the 60 participating schools. We asked about what programs and resources schools have to support the college-going culture and talked about the ways that teachers provide additional support for college guidance in their classrooms. We also talked about the technology infrastructure at schools to discover how students are able to access digital devices on their campuses.

4 Record observations of *Challenge* activities. To understand how implementation played out across the diverse schools sites, we worked to document the challenges and implementation strategies. Throughout the weeks of the *Challenge* we visited schools and recorded extensive fieldnote observations.

5 Conduct post-*Challenge* focus group interviews. We were able to observe how the *Challenge* progressed at local schools, but we were not able to be on site at the majority of schools all of the time. In the months following the first year of implementation, we visited the 30 treatment schools to talk to administrators, counselors, teachers, and students to talk about their experiences with the game and broader *Mission: Admission Challenge*. We found that interviews and focus groups with key stakeholders not only produce helpful data, but also serve to generate positive relationships for study outreach.

6 Get organized for analysis. Meticulous organization of qualitative data is a key part of the process. Before we could analyze all of the data we collected, we first had to organize it. This meant getting the audio recordings of our interviews transcribed and organized in a research database. Once we had all of the documents ready for analysis, we transferred them to the qualitative data and research analysis software *Dedoose*. This tool is designed specifically for qualitative research teams to be able to work collaboratively.

7 Draft codes and create a codebook. A common way to analyze qualitative data is to code it by tagging chunks of data with a researcher-generated word or phrase that captures the essence of its meaning. We spent weeks drafting possible codes and categories and testing them with excerpts of interview data and fieldnotes until we felt like we had a comprehensive and complete list of codes to analyze the qualitative data. From there, we generated definitions of each code and provided examples, which we documented in a shared researcher book.

8 Begin coding and analysis. Finally, after months of collective work and preparation we began the process of coding the data to see what themes emerged. Often, the unexpected outcomes are the most interesting and most useful for helping researchers and practitioners design better solutions for the real world. We are also examing themes from theoretical frameworks (such as social capital theory or technology identity theory) that are evident in the data. As part of this process, we have found that frequent collaborative discussion of emerging findings is helpful to guiding subsequent research design for the next phases of the project.

Evaluating

Robert Reichardt & Abby McClelland

Large research projects, particularly those run by universities, often involve significant overlap between the work of the researchers and evaluators. Because of the magnitude of data collection and data analysis and the number of players involved, sometimes it is hard to figure out who is doing what and why. In the *Mission: Admission* project, the key support that we, as evaluators, are providing to the project is the impact evaluation, while game designers focus on collecting and analyzing data to improve the game, and academic researchers work to serve the broader field of game based learning and college access.

The impact evaluation is intended to provide an outside, rigorous study design to document evidence of the game's impact on student outcomes. This evidence of impact, which comes after the project is completed, provides a powerful way to document the value of the game to funders and clients, such as school districts, state departments of education and policymakers. Essentially, evaluations are a path through which programs can grow and serve more students after the project is completed. Evaluations help the research team achieve the higher goals of the project, in this case, increasing students' access to college.

Rigorous designs are complicated to implement. There is often a disconnect between the imagined conditions of an ideal rigorous research design and the on-the-ground reality of schools and students. At its heart, a rigorous design requires the project to be implemented in a way that creates a group of game players (the treatment group) and a comparison group whose only difference is their access to the game. This approach requires making decisions around who gets access to the game and who needs to provide data based on the needs of the evaluation instead of the needs and interests of students or schools.

The long-term goal of creating documented evidence of *Mission: Admission*'s impact is thus sometimes in conflict with short-term desires to provide access to the game to all students who could benefit. In other words, some students who could benefit must be denied access in order to have a comparison group for the research design. The primary response to this challenge is building good relationships with schools through open and ongoing communication with school partners. This communication enlists these partners in the higher cause of the project and keeps people informed about the logistics of project implementation: how decisions will be made about when the game is available to students in every school.

Reliable data is hard to collect. A second lesson learned is the difficulty of collecting consistent data across a number of different schools in different districts, some of which have students playing the game now (treatment) and others where students won't get immediate access to the game (control sites). For the research design, we need student data from all schools, regardless of whether they are treatment or control sites.

Our solution to this problem has two parts. First, we are relying on data collected by state agencies to be similar across all schools. Second, we are asking individuals at schools, often college counselors, to collect and report common data on their students. Building these partnerships, both with state agencies and with individual school staff, entails significant relationship-building and careful and consistent communication.

There is a constant theme to our lessons learned: the value of relationships. People often think about research and evaluation as a dry exercise in data, analysis and computer modeling. At its best, evaluations involve all these things, but relationships and strong communication are critical in enabling evaluators to be successful and allowing them to support the overall goals of the research project.

Reflecting & Troubleshooting

Carlos Galan & Antar Tichavakunda

Over the course of the past year, members of the *Mission: Admission Challenge* research team met weekly to devise action plans for implementation of program and research activities, debrief about ongoing outreach and research, and brainstorm about any issues that arose. Reflection was key to making timely and informed adjustments to the implementation of the *Mission: Admission Challenge* and research design.

ESTABLISHING TECHNOLOGY INFRASTRUCTURE TO SUPPORT PROJECT GOALS

Our team members and IT site contacts were diligent in working together to make sure *Mission: Admission* functioned on school computers prior to the launch. Our troubleshooting for tech issues included:

- Developing a list of common problems and solutions. As tech issues arose, we devised a list of recurring issues and their corresponding solutions. We then shared our troubleshooting manual with school contacts so that they would be informed on how to solve common problems.
- Updating software. Because the *Mission: Admission* game was developed with relatively new software, some schools were not able to effectively run the *Challenge* with existing technology. We understood that the process of updating software (such as web browsers) could take a lot of work for a single IT person; thus, members of our team made themselves available to help IT staff update software in school computer labs/laptop carts.
- Creating an iPad work-around. Students and schools who played the game on iPads experienced fewer software issues and reported more frequent game play. However, IT staff at these schools required help from researchers to download the *Mission: Admission Challenge* App onto the iPads. With additional funding, we hope to be able to develop builds that will be compatible with iPhones and Android devices.

ACCOMODATING STUDENTS AND TEACHERS

Perhaps our biggest challenge thus far as been maintaining consistent communication and engagement across schools. Some schools collaborated seamlessly, and others required more nuanced and persistent outreach. Some schools adopted the game tools with gusto, while at others, the intervention was not adopted in a meaningful way. As we reflected on study progress, we reminded ourselves of how overburdened teachers and counselors are. We had to remember that many students had limited access to technology and that many students faced significant challenges in finishing high school, let alone preparing for college.

Due to technology issues, some schools had a harder time implementing the *Mission: Admission Challenge* than others. Schools that experienced a late start struggled to catch up, accumulate points and remain competitive. As the challenge went on, we had to re-visit our metrics and scoring system to make it easier for students to earn points in order to sustain motivation. Our approaches included:

- Extending the longevity of the *Mission: Admission Challenge* to accommodate schools that experienced a late start.
- Adjusting the incentive scoring system by lowering the threshold for schools to earn cash prizes.
- Adding student-level prizes to stimulate individual-level activity.

Based on troubleshooting and reflection from year one, next year we anticipate a clearer roll-out and communication strategy. We also expect -- and welcome -- new ways to troubleshoot during round two.

Moving Forward

Zoë B. Corwin

WHAT WE HAVE LEARNED

Over the past two years, we have learned a great deal related to the process of conducting a large-scale, mixed methods, RCT study:

- Bringing together a strong team is critical. Communication among team members is key. Clear organization is essential. We have done well in this regard.
- The first year of grant funding dedicated to preparing to enter the field was a smart investment.
- Implementing an RCT research design at the school level is complicated given the dynamic and complex contexts of schools.

NEXT STEPS

- At the time of publication, all research teams are immersed in data analysis. Emerging findings will inform subsequent data collection and project activities. Stay tuned for forthcoming papers and presentations. Selected findings will highlight:
  - » First level digital divide issues
  - » Teachers as gatekeepers or facilitators of resources
  - » Benefits and challenges related to game-based learning
  - » Lack of common standards for college literacy and schoolwide college culture
- In the fall, we will enter the field again for round two of the *Mission: Admission Challenge*. In response to external and internal feedback, the *Challenge* will be revised accordingly:
  - » Expanded length of *Challenge*
  - » Simplified messaging to schools regarding participation requirements
  - » Clearer school-level incentive structure
  - » Creation of hard copy supplementary teacher materials to reinforce online game intervention
- Fall data collection will focus on:
  - » Case studies with an emphasis on student-centered data and implementation practices.
  - » Collection of evaluation study metrics including FAFSA/CA Dream Act and college application data.

About Pullias Center

With a generous bequest from the Pullias Family estate, the Earl and Pauline Pullias Center for Higher Education at the USC Rossier School of Education was established in 2012 (the center was previously known as the Center for Higher Education Policy Analysis). The gift allows one of the world's leading research centers on higher education to continue its tradition of focusing on research, policy, and practice to improve the field.

The mission of the Pullias Center for Higher Education is to bring a multidisciplinary perspective to complex social, political, and economic issues in higher education. Since 1996 the center has engaged in action-oriented research projects regarding successful college outreach programs, financial aid and access for low- to moderate-income students of color, use of technology to supplement college counseling services, effective postsecondary governance, emerging organizational forms such as for-profit institutions, and the retention of doctoral students of color.

Pullias team members include: Maria Luisa Ballon, Dr. Zoë B. Corwin, Dr. Laurel Felt, Diane Flores, Carlos Galan, Suneal Kolluri, Tattiya Maruco, Dr. Amanda Ochsner, Monica Raad, Antar Tichavakunda, and Dr. William G. Tierney.

About the Project Partners

Our USC partners include Dr. Gale Sinatra, Robert Danielson and Ian Thalkar from USC's Rossier School of Education, who are overseing the collection and analysis of quantitative data. Their expertise includes motivation, learning theory, knowledge construction, conceptual change learning, literacy acquisition, assessment, and cognitive and motivational processes that lead to successful learning in science. Dr. Dennis Wixon from USC's School of Cinematic Arts oversees server-level data analysis pertaining to *Mission: Admission* game play. USC's Game Innovation Lab in the School of Cinematic Arts continues as a fundamental project partner. Elizabeth Swensen and Sean Bouchard oversee development and maintenance of the *Mission: Admission* game.

The California Student Aid Commission's (CSAC) central mission to make education beyond high school financially accessible to all Californians. CSAC provides financial aid policy analysis and leadership, in partnership with California's colleges, universities, financial institutions, and financial aid associations and is a data and policy partner to the study. CSAC funds Cal-SOAP, a consortia of secondary and postsecondary schools and community agencies dedicated to improving the flow of information about postsecondary education and financial aid. The Center for Educational Partnerships is housed with the University of California at Merced and offers student, school and parent-centered services and prgrams that connect K-12 to postsecondary opportunities. The Coachella Valley Economic Partnership is an economic growth collaborative bringing together K-12, postsecondary, and business sectors to increase college completion rates. Cal-SOAP programs, CEP and the CVEP, will provide support for the implementation of study activities at the school level. CEP also acts as CSAC's data partner.

The Get Schooled Foundation is a nonprofit that capitalizes on the media and messengers of popular culture to inspire and motivate teens on their educational journey through high school and into higher education. Get Schooled is affiliated with MTV and supported in part by Viacom. Get Schooled Executive Director, Marie Groark, Fiona Yung, and Nourisha Wells have been integral partners in creating the online interface for the game intervention and research activities as well as a school-based incentive structure to encourage participation in research and game play.

Augenblick, Palaich and Associates Consulting (APA) is a privately owned company with extensive experience analyzing public education systems and policies across the United States. Their mission is to help clients solve problems so that they can meet student performance goals and improve the quality, effectiveness, and efficiency of the nation's public schools. Robert Reichardt and Abby McClelland serve as project evaluators.

Pullias Center for Higher Education

Rossier School of Education

University of Southern California
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