

COVER PAGE
Saddleback College (Application #1) - Student Success Suite (S³)

- **Contact Information**

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- **List of Participants (See Appendix "A" for Letters of Support)**

University of California at Irvine
California State University at Fullerton
Capistrano Unified School District
Irvine Valley College
South Orange County Community College District (SOCCCD)
Irvine Unified School District
Tustin Unified School District
Orange County Workforce Investment Board
Orange County Business Council

- **Application Abstract**

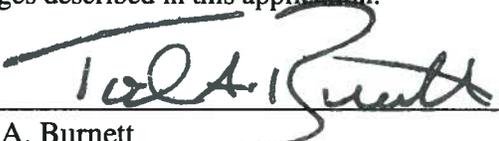
Students flock to online services with intelligent recommendations yet when students reach college they discover static menus leading to a bewildering array of choices. Sadly, many students waste time and money navigating a path to completion. Meanwhile, colleges are being asked to rapidly increase college completion rates as funding decreases across the country. Creative solutions are needed.

Saddleback College, Irvine Valley College and South Orange County Community College District have created a *Student Success Suite (S³)* software to guide students toward an efficient path to completion using a student-centered design. *My Academic Plan (MAP)* has allowed students to create over 227,000 streamlined academic plans. *Sherpa* is a recommendation engine providing students with timely nudges to guide decision making. *Sherpa's* Closed Class Assistant has led to more than 27,000 enrollments. New modules since January 2014 include *Predictive Analytics* which mines large amounts of data to predict student success and provide proactive course recommendations; *Student Success Dashboard* which customizes students' class schedules, appointments and to-do lists into a single, mobile friendly dashboard; *SmartSchedule* which provides students with an intuitive way to find the most appropriate classes that meet their requirements; and *Waitlist* which provides a fair, automated way for students to add classes.

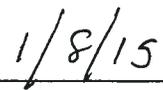
Our district and colleges are recognized leaders in educational technology throughout California and the nation. We are currently seeking opportunities for funding and partners to help us expand S³. Our dream is to eventually share our tools with all community colleges in California and perhaps, the nation.

- **Assurance and Signature**

"I assure that I have read and support this application for an award. I understand that if this application is chosen for an award, my institution will be required to submit, for approval by the Committee on Awards for Innovation in Higher Education, a report indicating proposed uses of the award funds and, as the fiscal agent, will be responsible for distributing funds to any other participating entities. I also understand that, if this application is selected for an award, my institution will be required to submit reports to the Director of Finance by January 1, 2018, and by January 1, 2020, evaluating the effectiveness of the changes described in this application."



Tod A. Burnett
President, Saddleback College



Date

CONTEXT

1. Institutional Goals Set by Participants – 2014-2020 institutional goals described below were born out of the 2013 strategic planning processes of the South Orange County Community College District (including the District wide technology plan) and its colleges (including both college Student equity Plans). Planning was driven by a shared desire to enhance the success of our students and colleges. Goals reflect several factors including: student needs, objectives of the Chancellor’s Office, student data; and other data describing student issues and challenges, particularly historically underserved student populations (HUSP), related to enrollment, completion, persistence, transfer, and challenges related to interacting with college offices and processes. The goals below align with priorities of the *Awards for Innovation in Higher Education* as they directly support the attainment of bachelor’s degrees as well as ease of transfer especially as they relate to matriculation, enrollment, registration, transfer, and on-gong academic support.

The goals of the Student Success Suite (S³) are closely aligned with multiple goals of the 2014-2020 South Orange County Community College Districtwide Strategic Plan as well as multiple goals of the South Orange County Community College Districtwide Technology Plan – in particular goals 2 and 3 respectively. The links between these goals and districtwide planning goals are outlined below:

Districtwide Strategic Plan Goal	Districtwide Technology Plan Goal	S ³ Goals
Goal 2: SOCCCD will promote students' success by enhancing the teaching and learning environment.	District-wide Technology Goal 3 SOCCCD will continue to be a leader in technologies supporting student success and enhancing the teaching and learning environment.	<ol style="list-style-type: none"> 1. Support increased attainment of student’s educational goals 2. Improve student experiences and efficiencies through technology 3. Support more effective counseling

Furthermore, the innovation(s) described in this application exemplify the district’s ongoing commitment to innovation as outlined in Goal 1 of the 2014-2020 Districtwide Strategic Plan - SOCCCD will foster an environment characterized by creativity, innovation, respectful interactions, and collaboration.

Increasing Bachelor Degree Attainment/Ease of Transfer – Bulleted items begin to describe the advantages of the S³ and the potential or real impact they have on student success, degree attainment, and their interaction with their college.

- S³ provides innovative and intelligent tools that more accurately support individual needs resulting in better trajectory for students.
- S³ more effectively interacts with students than traditional manual college processes that require student initiated contact as it **automatically emails, calls, and notifies students of impending deadlines.**^{ix} As example, text message reminders between high school graduation and start of the fall semester have shown to help low income students stay on track to matriculate - increasing 2-year college enrollment by 3%.ⁱ
- MAP supports transfer and completion by **enhancing communication with students and faculty and by increasing the effectiveness of advisement sessions** between counselors and students. MAP **assists administration with class scheduling**, and improves the district’s knowledge of student needs.
- Making **data driven decisions** at each stage of a student’s progress contributes to increased student success; allows the college to **monitor key indicators** in addition to interpreting data to make informed enrollment management decision to the benefit of the student body.

2. Statistical Profile of Students Served

Gender – The South Orange County Community College District (SOCCCD) has an unduplicated student headcount of 55,451 for the academic year of 2013-2014.ⁱⁱ Of these, 56% respond as female; 40% respond as male; and 2% declined to state.ⁱⁱⁱ

<i>SOCCCD Ethnic and Racial Categories and Other Student Populations</i>			
Ethnicity	Percent	Ethnicity	Percent
American Indian/Alaskan Native	<1%	Pacific Islander	<1%
Asian	16%	Declined to State/undefined	3.4%
Black/African American (1,171)	2.1%	Student Population^{iv}	Percent
White (Non-Hispanic)	52%	Current or Former Foster Youth	<1%
Hispanic/Latino (5,741)	10.3%	Students with Disabilities	4.1%
Middle Eastern	<1%	Low Income Students ^v	28%
Mixed Ethnicity ((8,255)	14.8%	Veterans	1.5%

Factors Affecting the Ability of Students to Succeed - Lower enrollment, persistence, and transfer rates in the community college disproportionately affect HUSP impacting their ability to transfer, graduate within four years, and earn a bachelor’s degree. This application focuses on two categories affecting HUSP: **1) Informational; and, 2) Complexity of processes.** This is not intended to minimize the possible influence of other factors such as peer and family pressures, previous academic achievement, lack of institutional transitional support from secondary to post-secondary institutions, or economic factors.

Informational – Several students make their decision to enter college based on limited information, and some students on the margin of college entry may need to experience one year of college to obtain more information – it is during this first year that several students experience an unforeseen “culture shock” of “go here, do this, obtain that” causing them to exit early in frustration.^{vi}

Students who do not have academic plans find enrollment a tenuous prospect. If such students do enroll, they often feel uncertain as they navigate the enrollment process. **A lack of academic advising is a primary hindrance for students wishing to transfer from a community college to a four-year college.**^{vii} Placement and matriculation policies may compound the problem as, without them, students may not declare an academic focus early or may not have enough guidance to help them reach their goals.

According to the Community College Survey of Student Engagement (CCSSE), community college **students are not meeting with academic advisors at appropriate times over the course of their studies.** Many students do not have adequate advising to obtain **information** on the **behaviors and steps needed to enhance persistence and transfer.** Information may not be accessible or tailored to meet students’ needs. CCSSE indicates that although advising and matriculation rates are increasing, students are **not using information** to the extent necessary to prepare them for transfer. Transfer and financial aid information should be emphasized to encourage transfer from the day students begin at the community college continuing with automatic, ongoing, personalized, and easily accessible information and prompting (or “nudging”).^{viii}

Complexity - A **lack of guidance on college-enrollment processes** increases student error regarding courses, major, enrollment, and financial aid.^{vi} Academic catalogs and course requirements may be confusing, and enrollment, registration, and financial aid processes may be lengthy and complicated or may lack clarity, overwhelming students hindering their ability to enroll.^{vi}

Addressing Factors that Inhibit Student Success – The SOCCCD is developing and integrating **technological tools** that show promise and high potential for student success. Below is a summary of key practices/systems initiated prior to January 10, 2014 to help address inhibiting factors and to achieve the goals identified in Item #1 above.

The District has developed and implemented the “Student Success Suite (S³).” S³ is a construct of individual technological tools that, when combined, make up a comprehensive set of personalized support systems that help students overcome a multitude of barriers essential to student success as described in Item #1 including: lack of specific academic plans and academic support; need to provide students with information on behaviors and steps to enhance persistence and transfer; need for on-going personalized, and easily accessible information and prompting; and lack of guidance on college enrollment process.

- **My Academic Plan (MAP)** - An innovative on-line system to help students define and track personal and academic goals. Provides a multi-page “Wizard” to help students choose an academic goal and plan a local degree/certificate or transfer to a four year university. MAP assists students with the sometimes difficult task of determining which courses to take and when; advises which courses are required for their state major and best supports their academic plan. SOCCCD’s MAP tool went on line in 2007, seven years prior to the states mandated implementation.
- **My Site** – A centralized student service portal to all online services providing students with easily accessible and timely information on essential information regarding their academic plan and progress. Provides important information on academic standing and provides feedback on progress so that students can more accurately forecast and plan for success.
- **Sherpa** – A unique and innovative recommendation engine designed to increase student success by creating targeted student profiles for “nudge” interventions and/or positive reinforcement. Provides students timely notifications of important deadlines relevant to their success; allows college staff to “push” important tasks into the students’ personal to-do lists; displays student schedules in an intuitive calendar format including a mobile version which guides students directly to their class locations using the GPS capability in their smartphones.
- **SmartSchedule** – An online technology tool that provides students an intuitive way to find the most appropriate classes that meet their requirements and help fulfill their educational plans; integrated with MAP so students can view a personalized class schedule displaying only the courses the student said he/she wanted to take that semester; provides a class “shopping cart” to hold the desired list of classes until their registration appointment time arrives.
- **Student Information System (SIS)** – A student centered system that simplifies and streamlines student registration. The average registration time for students during peak hours has been reduced to under seven minutes.
- **inFORM Data Warehouse** – provides a well-designed central resource to help address our college and district needs. inFORM was developed in house using the Microsoft Business Intelligence toolset and shares SharePoint to access information. inFORM addresses the need for state and federal data collection, reporting, and self-service analytics and puts data in the hands of Researchers, Administrators and Faculty. It provides automated reports that are accessible to the college community and frees up researcher’s time to focus on specific research agendas that focus on cohort studies.
- **Integration of MAP, My Site, Sherpa, Analytics** will allow students to intelligently choose and plan their classes. S³ provides students with a list of classes color coded to level of difficulty based on their personal analytic profile; classes that will be support success in later classes; will provide a personal difficulty rating and predicted grade attainment for each class so that students can balance their class load.

INNOVATION

3. Key Practices and Systems in Place Prior to January 10, 2014

The SOCCCD developed the **Student Success Suite (S³)** with programs that function independently and interdependently within the larger S³ system. The goal of S³ is to help increase student transfers and four year degree attainment, and to reduce the time it takes to transfer. S³ provides a technological edge by addressing the need: for adequate and ongoing academic planning; more information on behaviors and steps needed to enhance persistence and transfer; ongoing personalized easily accessible information and prompting; and, for guidance on college enrollment.

Although each program has been developing and evolving during different time frames since 2000, they are all maturing into more efficient and effective tools that make up the most current suite of technological tools known as S³. **MySite** was the first tool in the suite developed to provide students with one online location for all online services. Students use it to add/drop classes, view class listings, order books, email instructors, access college email and view their grades/transcripts. MySite received the CCC Technology Focus Award in 2001. (**Pictured:** MySite provides students with the ability to be guided directly to their class location on a satellite image)



SmartSchedule was the second tool developed to provide students with an intuitive way to find the most appropriate classes that meet their requirements. Students can add classes to their “personal shopping cart” which can detect any registration restrictions prior to registration and students can track the status of the classes prior to their registration appointment. SmartSchedule received the CCC Technology Focus Award in 2005.

MAP provides students with: a self-service guide to academic plan development; tracking system for counselors and students to monitor progress toward goal attainment; an individualized set of courses including a time frame for completion; and MAP is updated with the latest course completion data every time the plan is accessed. MAP received the CCC Technology Focus Award in 2007.

SIS was created in phases designed with the student experience at the center. SIS is a full featured student system that runs most of the functions of the college outside of Human Resources and Fiscal Services. SIS was awarded the National Campus Technology Magazine Innovators Award in 2010.

Sherpa is dedicated to increasing student success by “providing students with the right information at the right time,” enabling them to make better academic decisions. Sherpa uses time, event or data-based “triggers” to deliver multimodal personalized communications such as helping students find alternative classes when classes are full, target at-risk students for intervention, and provide tailored information about campus events to individual student interests. Sherpa phase 1 provided a “Class Assistant” to help students find desirable alternatives to full classes. Phase 2 is the heart of Sherpa that provides college staff the ability to identify students who require intervention (profile) and to send out a communication to “nudge” students into making a decision that will increase their chance of success. Nudges can be delivered as a portal newsfeed, text, phone call, email, task, or

MAP recommendation. Nudges can be enacted by dates, events, or if the student is failing or drops a class. Phase 3 involved a redesign of the MySite home page to make it fully driven by Sherpa nudges. Phase 4 produced a mobile version of the portal which directs students to their next class as a reminder as well as through GPS directions. **inFORM** data warehouse was developed to streamline district and college administrative processes and reporting.

Student Success Suite Impacts and Lessons

- **MAP** has been used to create over 272,000 academic plans since it went online in April 2007;
- 90% of Irvine Valley students and 96% of Saddleback College students rated their **MySite** experience as “Excellent” or “Good” in the latest college accreditation survey;
- The average length of student registration in SIS is under 7 and 5 minutes during peak and non-peak hours, respectively;
- **Sherpa’s Closed Class Assistant** has led to more than 27,000 enrollments since fall 2010.
- These systems are **heavily used**. In the last year, MySite pages were accessed over 14.7 million times and SmartSchedule was accessed over 10.3 million times for a combined total over 25 million. (**Pictured:** MySite Mobile – the same functionality as the MySite homepage but tailored for the mobile experience.)
- Completing developmental education requirements early is related to higher achievement, and **students can’t complete if they don’t enroll**. Research suggests that students who need developmental education and **enroll in proper courses during their "first term are more likely to complete** their developmental sequence.
- Informed educational planning help students succeed
- Creation of online resources is essential to providing supportive advisement and allows students to “self-manage” their academic pathway.^{viii}
- S³ allows counseling faculty to spend less time performing routine functions and utilize their professional skills to support students in more complex dimensions. Transitioning lower-need, self-directing students to online tools will free up advisors and counselors to focus face-to-face interactions with students who lack access to technology or are not adequately prepared to utilize it and those who need more complex interactions with a counselor.



4. Changes to Systems that have been Initiated Since January 10, 2014, Intended to Achieve the Goals Identified in Item 1.

GOALS

- Support Increase Attainment of AA Degrees, Certificates, Transfer or Employment
 - Improve Efficiencies in Student's Experience in Technology
 - Support Better Interaction Between Students and Counselors

Research informs how the college uses technology to influence changes to college systems. As the amount of data, faculty self-assessment and student feedback increase, college faculty and staff are able to continuously assess what works best and what may not work as well. The speed at which changes to key approaches and systems described in Item 3 evolve is quick as practice and new technology informs improvement.

S³ Key Changes Intended to Achieve the Goals Identified in Item (1)

- Enhanced Sherpa and Expanded Scope
- Student Success Dashboard
 - MAP Enhancements
 - Predictive Analytics
 - Update to SIS

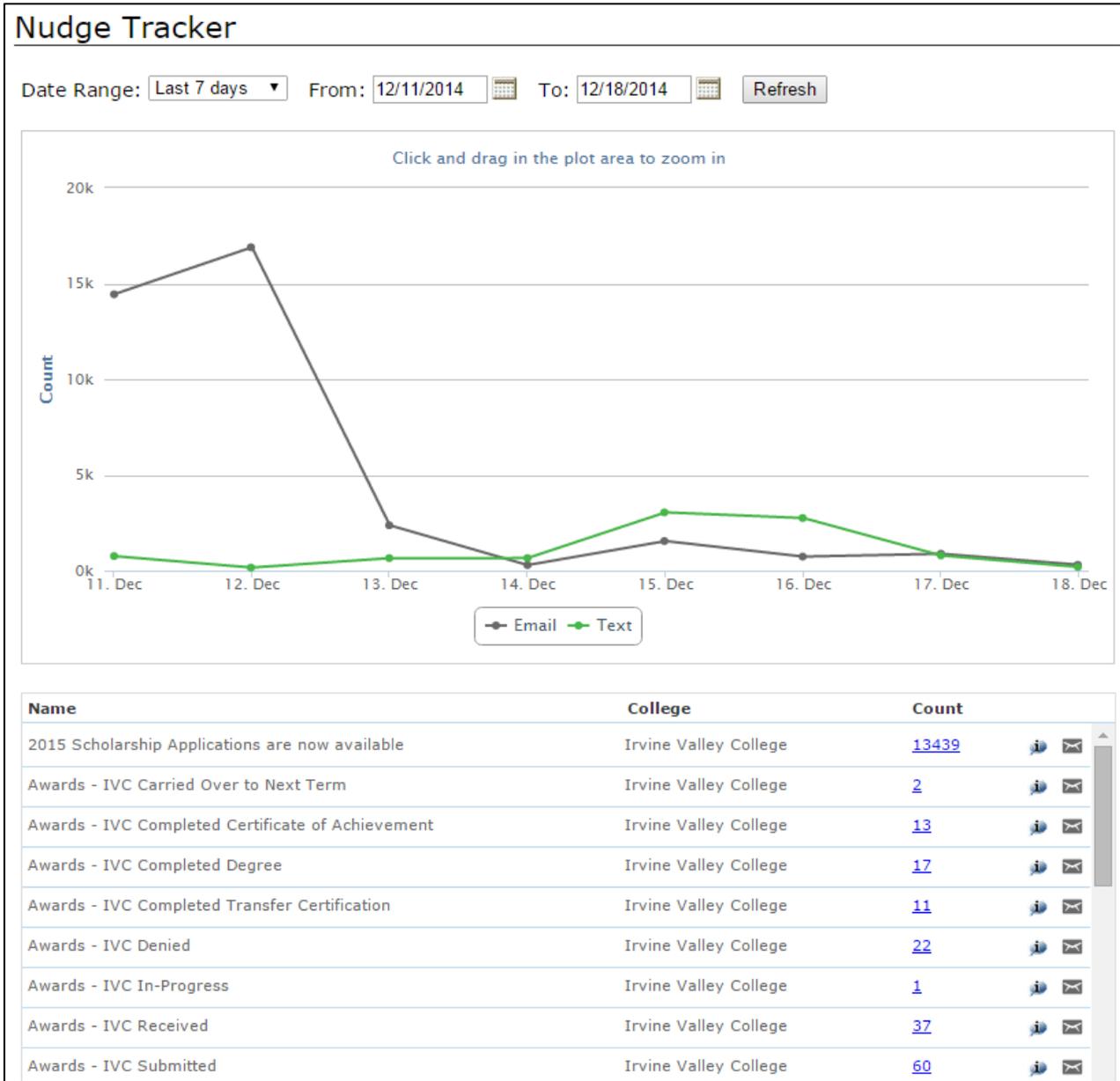
Today's students use laptops, smartphones and tablets not only to communicate with friends and professors but also to make appointments, purchase goods and services, watch movies, and do research. This is where our students spend much of their time, and S³ seeks to meet them where they "congregate" by the use of smart applications that make it easier for them to pursue and reach their educational goals.^{viii} While S³ generates efficiencies that improve college and district operations, more importantly they increase and improve communication with students by using platforms similar to those they already rely upon to manage their daily lives.

These changes were initiated to achieve the goals listed above by developing centralized, integrated technology accessible through a web portal to guide students in their educational processes.^{ix} Several recommendations by the *California Community Colleges Student Success Task Force Report* rely heavily on the capability of technology to help guide students along educational pathways. To implement many of the Report's recommendations, Saddleback College, Irvine Valley College and South Orange County Community College District have developed and implemented a variety of centralized technology tools to create more responsive and proactive student services and broader adoption of student educational plans.

Enhanced Sherpa and Expanded Scope – Sherpa enhancements will greatly increase the ability of the college and District to proactively meet the needs of students as well as provide faculty and staff with large and up to date information regarding student academic and supportive needs, and performance trends. The following enhancements were made to Sherpa since January, 2014:

- A "Nudge tracker" to allow staff to easily track the number of nudges going out during a specified time period;
- A "Profile tracker" that records the number of people in a profile each day which allows the district to track the effectiveness of nudges; and,
- Expanded use of Sherpa by training college staff in the creation of profiles and nudges.

Nudge Tracker – shows the number of nudges that are being sent out – many of them are automatically based on data triggers such as the arrival of the students’ registration appointment.



Profile Tracker – tracks the number of students in a profile over time. In this example students had a hold placed on their record due to their probation status. The red dots indicate when a nudge was sent to them and you can see the numbers begin to drop as they respond to the nudge and take the steps necessary to remove the hold.



Student Success Dashboard

We are beginning a new project that will expand the use of Sherpa and MAP into the MySite home page. The goal of this project is to produce a student success dashboard that will provide each student with one place they can go to visualize the progress they are making toward achieving their academic goal(s).

- The dashboard will provide step-by-step instructions to completing other important tasks such as completing matriculation and applying for a degree or certificate;
- Will provide up to date information on academic standing and priority registration status;
- Provides one location in our MySite enterprise web portal that will keep students continuously apprised of the factors that contribute to their success and how those factors personally impact them. The dashboard will be accessible by authorized college faculty/staff to assist students with their goals.
- Allows student access to information and processes electronically, reducing paper forms, in-person visits and phone calls to various campus offices.
- Ties together data from disparate sources (MAP, transcripts, degree audit, Sherpa, etc.) and provides an intuitive student-friendly guide.

Student Success Dashboard Phase II Mockup
 Conceptual design of a revised version of the dashboard that is currently under construction.

The dashboard for Sandy Jones, a Saddleback College Transfer Student, displays the following information:

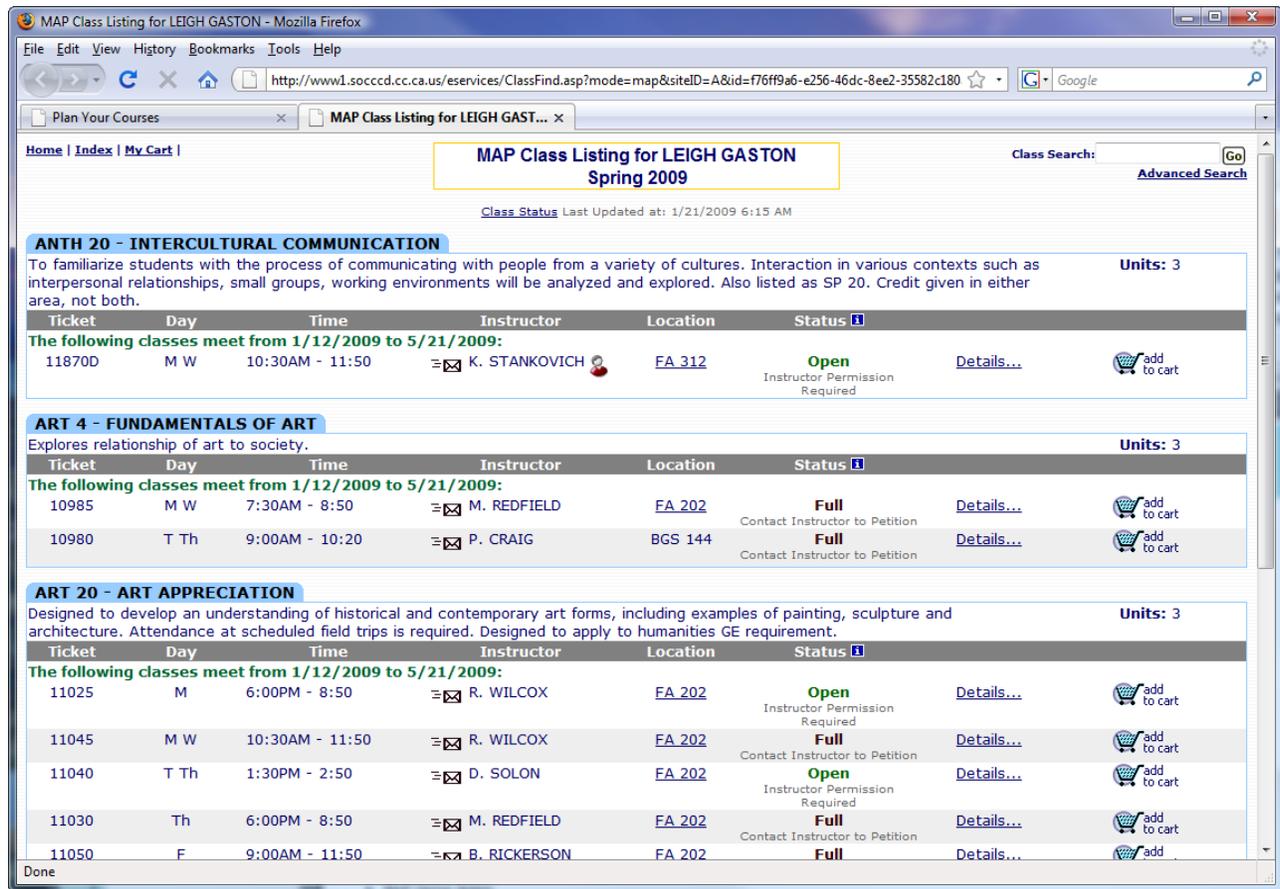
- Navigation:** HOME, CLASSES, SERVICES, CAMPUS, MY ACCOUNT
- Profile:** Sandy Jones, Saddleback College, Transfer Student
- Progress:** 1 Award, 14 Units, 3 Badges, Degree Status: 85%
- My Semester (Fall 2014):**
 - GPA: 3.6
 - Attendance: 96%
 - Balance: \$0
 - Class Schedule:

	Mon	Tues	Wed	Thurs	Fri
8 a.m.					
9 a.m.		Chem 101		Chem 101	
10 a.m.					
11 a.m.		Art 101		Art 101	
12 p.m.					
1 p.m.		Anth 202		Anth 202	
2 p.m.					
3 p.m.					
4 p.m.					Waitlist
 - Deadlines:** Freshmen Orientation (1 day), First Semester Plan (1 day), [Other Deadline] (5 days), [Other Deadline] (6 days), [Other Deadline] (2 weeks)
 - Discuss:**
 - Jaclyn Schmidt posted to CS 101 5 days remaining to turn in your assignments.
 - Registration posted to Fall 2014 Registration deadline in 3 days.
 - Jan Bloomsbury posted to Art 202 Students: Grades are posted.
 - My Groups (32):** CS 101 (32 members), Fall 2014 (2205 members), Commencement 2014 (635 members), Art 202 (425 members)

Improvements to My Academic Plan (MAP) – MAP provides a common platform of technology and planning for students and counselors to work more effectively throughout the academic planning process. MAP allows for a more robust student service experience as well as broader and more widespread use of the educational plan.^{viii} **MAP enhancements/updates directly support** the California Community Colleges objective of providing stronger support for students through the use of centralized, integrated and student friendly technological platforms to better guide students in their educational planning process. Additionally, the efforts of counseling faculty and other college staff will be more effectively targeted. MAP enhancements enacted since January, 2014 include:

- Modified to support new requirements of the statewide Student Success Initiative. It now flags plans that have met minimum requirements for a preliminary academic plan which automatically sets a flag in SIS allowing those students to register the first time;
- Once a counselor approves the plan then MAP automatically releases the hold on the student record that prohibits incoming freshmen in Fall 2014 from registering once they reach 15 degree applicable units or three continuous enrolled semesters; and,
- We are currently building a template capability which will allow students to create plans with a set of pre-loaded courses that counselors recommend for their specific goal.

MAP Class Listing
 Students can request a personalized list of sections offered for the courses



Predictive Analytics

Higher educational institutions teem with “digital exhaust”—digital data that is collected but rarely viewed, much less used to increase student success. A new movement known as *Big Data* seeks to combine massive amounts of data from different sources with sophisticated mathematical modeling to glean business value from such data.

In what ultimately became a “coast-to-coast” project, we worked with mathematicians from New York to Southern California to leverage *machine learning* techniques in order to help students select classes in which they are more likely to be successful. Students will be provided with a simulator feature that will allow students to adjust their potential grade in any/multiple early courses to determine what that impact will be on their success in later courses. Our ensemble mathematical model utilizes matrix factorization, decision trees, Bayesian networks, and linear regression models operating on nearly a million course and student grade records. We have completed the research phase of the project and are in the process of discussing the best way to make this information available to counselors and students.

Student Information System (SIS)

SIS is constantly being updated to add new features and to respond to new state or local policy changes. Significant work was completed recently to support the new registration priority requirements of the Student Success Initiative.

5. Changes to systems that will be implemented after January 9, 2015, intended to achieve the goals identified in Item 1, as well as the expected timeline for implementing changes and expected impact of changes. Include evidence of commitment to future changes.

Changes to Student Success Suite		
Update/Change	Timeline	Expected Impact/Outcomes
Upgrade to SmartSchedule 2.0	April - December 2015	<ul style="list-style-type: none"> • Will be able to “tap” into data from MAP, Sherpa and Predictive Analytics to create a class schedule customized to individual student goals and preferences contributing to completion or transfer • Allow students to conduct customized class searches based on several factors such as transferability, or day and night classes allowing students to focus on what best fits their needs and lifestyle. • Increased functionality to help students quickly and more easily find the classes that will lead to their success • Visually more appealing to student users • Will become more than just a digital representation of the old paper schedule.
Increase mobility of SmartSchedule	April - December 2015	<ul style="list-style-type: none"> • Will promote increased usage by students by making it easily accessible with smartphones or tablets
Develop and integrate proactive elements to SmartSchedule	November 2015 – April 2016	<ul style="list-style-type: none"> • Students will be provided with a list of suggested classes based on their goals, preferences, and past registration activity. • It will adapt to student responses and guide them into developing a schedule personalized to their individual needs and goals. • Students will be able to make more informed and accurate decisions regarding their academic goals
Ideation and Exploration	November 2015 – April 2016	<ul style="list-style-type: none"> • Explore ideas how to represent this information using innovative and intuitive formats. • Develop a graphical road map of classes or perhaps tapping into game theory and present classes as a journey students need to follow. • Prerequisites could be viewed as a task that provides experience points, allowing students to "level up" and unlock other courses.
Dissemination and shared use	January 2016 – beyond	<ul style="list-style-type: none"> • SmartSchedule 2.0 will be built with an open architecture that could allow other colleges throughout the state to use it.
Expand data pool for predictive analytics to include incoming freshmen	January 2016 – beyond	<ul style="list-style-type: none"> • Increase planning and scheduling capabilities, and student profiles • Mitigate lack of data for “cold start” students

Evidence of Commitment to Future Changes

• **Strategic Planning**

Increasing access and support to historically underserved student populations and leveraging technology to increase student success are vital elements embedded throughout our strategic planning process. Our commitment to future technological changes described above is evidenced by the inclusion of the goals described in Item #1 into our various strategic planning processes.

Effective planning connects institutional priorities with student needs, technological trends and state and institutional goals. Our planning document is part of an overarching planning process that ensures the following:

- A plan that is consistent with district and colleges’ statements of vision, mission, and goals
- Through collaboration with district and college technology organizations, ensure alignment of technology initiatives with institutional priorities
- Dissemination of knowledge about technology needs and constraints
- Key institutional academic and business needs are addressed via technology

Planning is guided by the major planning documents for the district. The following list of planning documents is used to confirm and align the priorities of the district and colleges.

District-wide Planning Documents

- SOCCCD, Irvine Valley College, Saddleback College and ATEP Education and Facilities Master Plan
- SOCCCD District-wide Strategic Plan 2014-2020
- Irvine Valley College Strategic Plan 2014-2020
- Saddleback College Strategic Plan 2014-2020
- District Services Administrative Unit Reviews

Technology Planning Documents

- Irvine Valley College Technology Master Plan
- Saddleback College Technology Master Plan
- Irvine Valley College Distance Education Strategic Plan
- Saddleback College Distance Education Strategic Plan

Each one of the planning documents listed above contains goals that are part of this Innovation application. Inclusion of these goals into our planning documents characterize them as priorities and goals vital to the success of our district and our students for at least the next six years.

****See Appendix “D” which demonstrates the importance of these changes/goals as they are included in our strategic planning documents.****

• Budgetary Reflection of Organizational Goals

Budgets act as financial road maps to achieving goals and objectives that are important to an organization and reflect an organization’s overall mission and values. The SOCCCD has allocated funds to ensure that the changes described above and the goals described in Item #1 above are achieved. Furthermore, allocation of funds to S³ related projects demonstrate our commitment to future changes/goals. As an example, budget items include:

Fiscal Year	Project	Funding
2013/14	MAP	\$250,000
2013/14	Student Success Dashboard	\$550,000
2014/15	MAP	\$332,640
2014/15	SmartSchedule 2.0	\$735,000
TOTAL		\$1,867,640

6. How changes in your responses to previous items will impact average cost to bachelor's degree award

Technological changes and enhancements described herein provide stronger more comprehensive support facilitated by centralized, integrated, and student friendly technology which will better guide students in their educational planning process(es). More informed and accurate decisions will reduce the average costs to Bachelor's award on several fronts.

Extensive research has documented the importance of assessment, orientation, and informed education planning to set incoming students on a pathway to a successful outcome and build early momentum for their success. Given options, students who lack guidance are likely to seek what they think will be their most direct path through college-level courses, without understanding what is required to be successful in the college environment and without regard to their academic preparation for college-level work. There are multiple consequences when students make uninformed choices:

- Students find themselves in courses that are unconnected to reaching an educational goal for which they are not prepared, at best lengthening their time to completion, increasing their expense, and all too often causing them to drop out;
- Colleges lose the ability to target limited seats and services where they will be most effective; and
- Faculty are faced with underprepared students in their courses.

Predictive Analytics will interact/inform My Academic Plan (MAP) to help students complete in shorter periods of time by defining exactly which community college courses will directly help them fulfill their chosen 4 year degree requirements – reducing enrollment errors. MAP will help students to determine which classes to take with the highest chance of passing, based on personal and cohort academic history. Long term analytics will help inform student outreach to those students most likely to apply. Expended resources will have a greater return on investment by concentrating on those students most likely to enroll and attend.

MySite helps to ensure that students are provided with important information regarding academic standing, progression, and other essential information related to success. Challenges and red flags are timely addressed to help students make the “right decisions at the right time,” advises students which classes they need to transfer and/or graduate. Providing students with accurate information and helpful feedback reduces and helps to avoid taking the wrong classes at the wrong time.

Importantly, by shifting the lower-need, self-directing students to online tools, the College will free up advisors and counselors to focus their face-to-face interactions with those students who lack access to technology or are not adequately prepared to utilize it and those who need more complex interactions with a counselor. S³ enhancements allows counseling faculty to spend less time performing routine functions and utilize their professional skills to support students in more complex dimensions allowing “Better Bang for the Buck.” Furthermore, expanding the use of technology promotes overall efficiency and effectiveness and allows the college to highlight and implement best practices that realize the best use of resources. Disseminating findings throughout the state will result in considerable impact.

7. Risks or tradeoffs involved in the changes you are implementing and the way in which you will monitor and mitigate them.

Risks/Tradeoffs and Monitoring, and Mitigations	
Risks/Tradeoffs	Monitoring and Mitigation
<ul style="list-style-type: none"> Lack of Access to Technology 	<p>While not all students have the devices, skills, and experience to make effective use of this kind of technology, a large and growing proportion do and have expectations that the institutions with which they interact will utilize current technology to facilitate practical transactions as well as the learning experience.</p> <p>Students are queried at several stages to ensure they have connectivity/technology to progress through the process via electronic means. Students are given the option of face to face interaction at every stage.</p> <p>Public computer stations/labs are available at all locations including the counseling center, student support center, career center, etc.</p>
<ul style="list-style-type: none"> “Cold Start” students (lack of data for “new students” to populate predictive analytic formulas) 	<p>While this is not a risk, it is a challenge. Saddleback will add a data element to their current High School Partnership Program (HPP). HPP is a comprehensive pathway program for students of all feeder HSs grades 9-12 to prepare/provide them, their parents, counselors, and faculty a “roadmap” to Saddleback College. HPP provides early/priority registration and early special support services. 70% of HPP students end up enrolling into Saddleback College their first term out of HS. These cohorts of students will be used to populate predictive analytic formulas with transcript and behavior data, thus mitigating cold starts or lack of data.</p>
<ul style="list-style-type: none"> Discouraging students with a low prediction of success in a particular class 	<p>Great care will be put into the user interface before any students directly see the predictive analytics data. Initially it will only be available to counselors until we are confident it can be directly accessed by students without having a harmful impact on their success.</p> <p>Although students will be given a prediction on any given course, if the prediction is relatively low they will be provided with concrete explanations, guidance, and referral for assistance to help them address this challenge prior and during the class so as to increase potential for success. If the course has a very low predicted success rate we may not display it at all and instead suggest the student make an appointment with a counselor. Students will also be provided with a list of classes with high potential for success.</p> <p>Students will be able to “back track” and change their success for prediction by using “what if” scenarios. Such as “What if I received a ‘B’ in classes ‘X, Y, and X’, what would my grade in Class ‘Z’ be?”</p> <p>Guide students to taking courses that will provide them with the most “lift” in future predicted course scores.</p>

Sustainability

8. Key strengths and assets for encouraging a culture of innovation and adaptability.

Innovation

Just because innovation cannot be summoned at will doesn't mean it's an accident. Innovation springs from the intersection of passion, research and iterative experimentation. Innovation isn't a buzzword, it's a culture, and less something you *do* than something you *are* every single day. Innovation is a tolerance for failing forward and failing fast in order to more quickly learn what works, a willingness to generate and sift through hundreds of ideas to find the few workable ones. It's finding and working with like-minded innovators whether they be from peer institutions or from elite universities like UC Irvine and Stanford. It's forging unique public/private partnerships with software companies like Neudesic or cutting-edge "cloud" companies such as Workday. It's joint ventures with think tanks and research organizations like MDRC and Educause that help push boundaries and advance knowledge.

Leadership

Our technology leadership is nationally recognized. For example, our District's Vice Chancellor of Technology and Learning Services (who has won the California Community Colleges' highest award for technology leadership):

- Serves on an Analytics advisory board for Educause, America's largest educational technology organization for higher education
- Was one of three higher education data scientists in the nation brought together for an innovator's summit by the American Association of State Colleges and Universities (AASCU)
- Helped forge coast-to-coast collaborations with noted machine learning theorist Dr. Padhraic Smyth, the Director of the Center for Machine Learning and Intelligent Systems at the University of California, Irvine and Sandeep Jayaprakash of Marist College in New York.
- Advises MDRC, a respected national educational research organization, on expansion of analytics in the Sherpa program pursuant to an active MDRC study.
- Serves on a panel for WestEd, an educational funding arm of the Department of Education.
- Advises Wall Street on the ever-changing technological environment in higher education.
- Is a sought-after international keynote speaker on analytics and other educational technology topics.

Partnerships - *Our Latest Collaboration*

Having built a cutting-edge, student-centered student information system (SIS) we are now engaging in an innovative public/private partnership with Workday, a provider of cloud-based enterprise resource planning (ERP) software. Workday is in the process of building *Workday Student*, a cloud-based student information system, and the South Orange County Community College District will be a vital "Strategic Influencer" in this process. The Gartner Group, the world's leading IT consultancy, predicts that "*Workday's Cloud-Based ERP Will Transform the*

Market" and SOCCCD will work with them to incorporate S³ functions into a new world-wide cloud-based product from an established leader in global productivity software.

The Future - *What's Next?*

We have a lot of ideas on the launching pad! Here's one--Karma, which we envision as a crowd sourced software system that will incentivize prosocial behaviors so that students can help other students succeed. Imagine a student in a Psychology class has a question about Sigmund Freud and submits the question to Karma. Karma will use data mining to distribute the question to other students who have performed well in psychology classes (and who have opted in to participating in the Karma program), concatenate responses, handle quality ratings, and provide small incentives for participation. The result? "*Karma—doing well by doing good.*"

In closing, none of this would be possible without a concerted, coordinated effort springing from the highest levels of the organization. At South Orange County Community College District, we are fortunate in that our integrated district-wide strategic planning processes have resulted in a unified vision of how technology can help our students succeed. Our current and previous boards of trustees have committed to a long-term strategic vision that prioritizes using technology to increase student success. In the past decade, SOCCCD has "put its money where its mouth is" by investing over 15 million in technology initiatives to help our students--all with an eye toward eventually being able to share these systems to serve millions of students. This is no accident nor short-term strategy, but rather evidence of forging a long-term shared strategic direction and committing resources to an enduring vision

9. Describe your strategies for engaging stakeholders.

All of the systems described in this document were built using a collaborative approach between participant organizations, Saddleback College, Irvine Valley College, the South Orange County Community College District Information Technology department and the staff and students who ultimately use the system. At the beginning of each project a **design team is formed comprised of stakeholders from all areas** impacted by that system. The design team guides the development team in the creation of a new system and assist with deployment and feedback after the system goes online. As one example, our MAP design team meets every two weeks and is comprised of counselors, matriculation staff and students.

We pay particular attention to the student perspective by **hiring students to act as our Student Design Team each year**. They are in the room from the very beginning of a project and guide us as we develop the requirements, discuss the features, design the user interface and deploy the systems to the college. We train them in the use of the software usability testing system and they assist with focus group sessions. Focus groups work to refine the user interface and find critical bugs before they impact the college. Students also write and produce tutorial videos to assist students in the use of the new systems. Videos are produced to help students interact more efficiently with [Sherpa](#), [MySite](#), [Waitlist](#), and the [Student Success Dashboard](#). They are posted on You Tube and MySite.

Students routinely conduct outreach events on both campuses via a booth and interactive iPads to demonstrate the capabilities of S³ and encourage students to complete their academic plans. This also acts as a test environment to roll out features and choices for student input and feedback. This information is brought back to the design team for review. The students make the outreach fun and enticing with eclectic giveaway prizes and entertaining interaction.

Other stakeholders include community, business and government leaders. The district has led an ambitious marketing and outreach effort to share the innovations of S³ with the ultimate goal of finding a path forward to expand its use and benefit nationwide.

Development team leaders have presented at USC, UCLA and Stanford as well as Educause, AASCU, MDRC, West-Ed and other conferences. Our work has been featured in *USA Today*, *Chronicle of Higher Education*, *Orange County Register*, *Campus Technology*, *e-Campus News* and other publications. District and college leaders have met with state legislators and State Chancellor's Office. Last February the district held a federal briefing at the U.S. Capitol for congressional and workforce committee members and key agencies including multiple offices of the Department of Education. The event was also attended by reporters, business leaders from Gates Foundation and Workday and educational organizations such as the American Association of Community Colleges. The interactive session garnered valuable and informative input from influential thought leaders. There was particular interest in S³'s ability to target cohorts for customized needs. For example, one college may use S³ to target underrepresented ethnic groups while others may use it to increase their number of engineering completions.

****See Appendix "G" for additional information and photos of stakeholder engagement.****

10. How changes described in this application will be sustained within your existing financial resources.

The South Orange County Community College District has made a long-term strategic investment in student success technology - a major priority in its district-wide strategic planning processes. Accordingly, we have spent over \$4 million developing our suite of student success tools. However, financial resources have been strained since the recession beginning in 2007.

This commitment continues. Next year, we have already prioritized and funded nearly \$3 million of additional investment in the suite as well as the underlying student information system (SIS) framework in which they operate:

District-wide Technology Committee 2014-2015 Technology Projects STUDENT SUCCESS PROJECTS	2014-2015 Funding
SIS Enhancements	\$ 1,512,000
MAP Enhancements	\$ 332,640
Class Schedule Upgrade and Recommendation Engine	\$ 735,000
Enhance MySite Security and Permission Role Management	\$ 252,000
Total	\$ 2,831,640

Furthermore, the district-wide funding process is competitive and technology projects must compete against capital construction, deferred maintenance, and other projects. As a result, even though we have been able to build a suite of student success tools, only some of the tools we've proposed have been funded. As an example, we have conceptualized over 40 use cases for "Big Data" technology.

From the beginning, our tools were designed to work in a "Services-Oriented Architecture" framework which enables them to work with other software and be greatly expanded in scale; thus, these new tools could then be replicated to serve many more students (potentially *millions* more). In addition, since the tools work synergistically rather than in isolation, the improvement, expansion, and addition of new tools dramatically increase the potential interaction points for the tools to work together to improve student persistence, retention, and success.

Evaluation

11. Approach

The Student Success Suite and its related initiatives are multifaceted and are evaluated through various methods. For this application we have chosen to highlight three areas of evaluation in S³ to illustrate how the enhancements to the system are affecting the end goal of increased student success:

- 1) Experiential enhancement
- 2) Technology as a support for effective counseling
- 3) Support for student progress

Experiential Enhancement -- Technology development in the South Orange County Community College District (SOCCCD) is anchored in the practices of agile software development which include principles of adaptive planning, and evolutionary development. The project management process in the SOCCCD includes a formative evaluation method which incorporates best practices in technology development. These practices include development of a project charter, developing stories, working in month long sprints, daily scrims, and a monthly retrospective on each project. Each project is documented in the district's SharePoint intranet and involves the project sponsors, subject matter experts, student focus groups, and an evaluation at the end of each development cycle. These methods will be utilized to evaluate each of the S³ system updates described in Item 5 of this application such as the upgrade to SmartSchedule 2.0, and increased access via mobile technology as well as the movement toward the goals stated in Item 1. Student satisfaction surveys have been used to evaluate student experiences with technology, and tracking surveys will be continued.

Effective Counseling Support related to S³ is currently being evaluated through an MOU with MDRC as a subcontractor to WestEd, which is evaluating S³'s Sherpa and MAP components in a project entitled Mission Possible. One of the primary research questions is stated as: "What is the impact of Sherpa-delivered nudges on getting students to make an appointment to receive counseling and complete a MAP?" The research data provided through the MDRC study will be analyzed to identify the extent to which S³ supports counselor interactions with students as measured by the number of approved education plans in place, the effectiveness of Sherpa nudges to improve student/counselor interactions, and student success. MDRC will randomly assign approximately 4,200 students into three groups, and all study data and analyses will be made available to the South Orange County Community College District for further evaluation.

Student Progress and Achievement related to S³ will be evaluated using existing measures for success and completion. Specifically, indicators of student success that have been identified by the California Community Colleges Chancellor's Office as reflected in the Student Success Scorecard will be evaluated and disaggregated by gender, age, ethnicity, and economic status. These indicators include the following measures: persistence (the percentage of degree and/or transfer-seeking students who enrolled in three primary terms subsequent to their initial enrollment), math and English remedial progress (the percentage of credit students who start out at any level below transfer in English or Mathematics and subsequently complete a college-level course in the same discipline), and completion (the percentage of degree and or transfer-seeking first time students who succeed in completing a degree, certificate, or transfer-related outcome). The evaluation team will create a data element to code students relative to their level of engagement or use of technology, and the data related to the indicators described above will be further disaggregated and evaluated.

12. Target Outcomes

Targets related to experiential enhancement and effective counseling:

Student satisfaction surveys will continue in order to track student satisfaction with S³ modules. Baseline student satisfaction data indicates a 90% satisfaction rate with MySite, and tracking surveys will be conducted to ensure satisfaction rates are stable or enhanced from the baseline measures.

Utilizing data provided through the MDRC/WestEd study, the South Orange County Community College District will conduct statistical analyses to identify data correlations between Sherpa nudges, counselor interactions, education plan (MAP) development, and course grades. Statistically significant findings will be analyzed and evaluated to measure the effect of technology innovations.

Recent California legislation now requires that a majority of students have an academic plan in place as part of the matriculation process in the community college system, and many colleges are struggling to comply with the requirements of this legislation. Through the implementation of the technology innovations described in this application, the South Orange County Community College District has been a statewide leader in its ability to ensure that students are able to develop an academic plan (called My Academic Plan, or MAP). In Fall 2014, for example, 81% of 5,244 identified “first-time college” students had developed a MAP. Using this as a baseline, SOCCCD will track all students required to have a MAP in place with the following targets:

Completion of an academic plan (MAP)				
Baseline (Fall 2014 cohort)	Fall 2015 cohort	Fall 2016 cohort	Fall 2017 cohort	Fall 2018 cohort
81%	85%	90%	95%	100%

Targets related to student progress and achievement:

The baseline data and targets for the student success measures identified in the evaluation plan are embedded in existing plans at Saddleback College and Irvine Valley College. Student groups for which a disproportionate impact has been identified include Hispanics and African Americans as well as economically disadvantaged students (defined as those participating in a BOG fee waiver, Department of Social Services, CalWorks, TANF, General Assistance, Pell Grant or Workforce Investment Act). Data related to the Student Success Scorecard measures will be further disaggregated by level of engagement with technology. Five-year trend data will be analyzed to identify the mean and standard deviation for each measure, and this information will be utilized to identify targets for each measure. An example is provided in the table, below:

Outcome Measure: Completion of a degree, certificate, or transfer-related outcome					
Mean based on 5-year trend: 59.17% of the identified districtwide cohort					
Standard deviation based on 5-year trend: .31%					
Baseline 2007-08 cohort	2014-15 (2008-09 cohort)	2015-16 (2009-10 cohort)	2016-17 (2010-11 cohort)	2017-18 (2011-12 cohort)	2018-19 (2012-13 cohort)
58.97%	59.28%	59.59%	59.90%	60.21%	60.52%

References/Sources

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- ⁱ (Benjamin L. Castleman and Lindsay C. Page, “Summer Nudging: Can Personalized Text Messages and Peer Mentor Outreach Increase College Going Among Low-Income High School Graduates?,” Center on Education Policy and Workforce Competitiveness, updated October 2013, http://curry.virginia.edu/uploads/resourceLibrary/9_Castleman_SummerTextMessages.pdf)
- ⁱⁱ 2013-14 School Year
- ⁱⁱⁱ South Orange County Community College District’s data warehouse (inFORM), Fall 2013 term student enrollment data.
- ^{iv} CCCCO MIS Data Mart, November 4, 2014
- ^v BOG enrollment
- ^{vi} National Center for Analysis of Longitudinal Data in Education Research, 2014
- ^{vii} Shulock, N. and C. Moore. 2007. *Rules of the Game: How State Policy Creates Barriers to Degree Completion and Impedes Student Success in the California Community Colleges*. Institute for Higher Education Leadership and Policy. Sacramento CA: California State University.
- ^{viii} Rosenbaum, J.E., R. Deil-Amen, and A.E. Person. 2006. *After Admission: From College Access to College Success*. New York NY: Russell Sage Foundation.
- ^{ix} http://www.californiacommunitycolleges.cccco.edu/portals/0/executive/studentssuccesstaskforce/sstf_final_report_1-17-12_print.pdf.)

Appendix A – Letters of Support

Saddleback College (1)

Student Success Suite (S³)



Office of the Vice Chancellor Student Affairs

January 6, 2015

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7th Floor
Sacramento, CA 95814

405 Aldrich Hall
Irvine, CA 92697-5180
(949) 824-6482
(949) 824-2763 fax

RE: LETTER OF SUPPORT FOR SADDLEBACK COLLEGE - AWARDS FOR INNOVATION IN HIGHER EDUCATION APPLICATION

Dear Selection Committee:

The University of California, Irvine would like to extend its support for Saddleback College's application to the California Department of Finance for their *Awards for Innovation in Higher Education*. Saddleback College, Irvine Valley College and South Orange County Community College District have demonstrated educational excellence and a commitment to improving educational outcomes for the greater Orange County community.

The colleges in the South Orange County Community College District (SOCCCD) have a history of technological innovation that has garnered state and national attention. The District is known as a pioneer and leader in introducing "game changing" technology aimed at developing systems that help support and guide students toward their goals more quickly and efficiently. Their Student Success Suite (S³) is a construct of technological tools that assist students with the sometimes arduous task of enrollment, matriculation, registration, and academic advisement. Students are guided thoughtfully towards their goals using a focused, student centered approach.

University of California, Irvine has a long history of collaboration with the colleges in the South Orange County Community College District. Some of our most recent partnerships include the University of California Transfer Admission Guarantee (TAG) and the UC Irvine Honors to Honors Program Transfer Agreement.

We are committed to working with our colleagues throughout the region to continuously improve student success and transfer rates.

Sincerely,

A handwritten signature in blue ink that reads "Thomas A. Parham".

Thomas A. Parham, Ph.D.
Vice Chancellor
Student Affairs



CALIFORNIA STATE UNIVERSITY, FULLERTON

Office of the Provost and Vice President for Academic Affairs

P.O. Box 6850, Fullerton, CA 92834-6850 / T 657-278-2614 / F 657-278-5853

January 7, 2015

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7th Floor
Sacramento, CA 95814

RE: LETTER OF SUPPORT FOR SADDLEBACK COLLEGE - AWARDS FOR INNOVATION IN HIGHER EDUCATION APPLICATION

Dear Selection Committee:

California State University, Fullerton would like to extend its support for Saddleback College's application to the California Department of Finance for their *Awards for Innovation in Higher Education*. Saddleback College, Irvine Valley College, and South Orange County Community College District have demonstrated educational excellence and a commitment to improving educational outcomes for the greater Orange County community.

The colleges in the South Orange County Community College District (SOCCCD) have a history of technological innovation that has garnered state and national attention. The District is known as a pioneer and leader in introducing game-changing technology aimed at developing systems that help support and guide students toward their goals more quickly and efficiently. Their Student Success Suite (S³) is a construct of technological tools that assist students with the sometimes arduous task of enrollment, matriculation, registration, and academic advisement. Students are guided thoughtfully toward their goals using a focused, student-centered approach.

Saddleback College's approach to using technological tools to improve student performance in foundational math courses, for which Saddleback College faculty earned the *Sloan Consortium's Effective Practice Awards for Online Teaching*, has been recognized by the National Association of Developmental Education (NADE). Higher education research has identified a direct connection between success in college-level mathematics and student achievement, and Saddleback College's innovations have led to the development of mathematics teaching tools that can help students throughout the state to succeed in math and attain higher education degrees.

California State University, Fullerton has a long history of collaboration with the colleges in our surrounding community. Some of our most recent partnerships county-wide include the Rancho Santiago Community College District and the North Orange County Community College District.

We look forward to our continued work with colleagues throughout the region to continuously improve student success and transfer rates. If you require additional information, please feel free to contact me at (657) 278-2614.

Sincerely,

José L. Cruz, Ph.D.

Provost and Vice President for Academic Affairs
California State University, Fullerton

THE CALIFORNIA STATE UNIVERSITY

Bakersfield / Channel Islands / Chico / Dominguez Hills / East Bay / Fresno / Fullerton / Humboldt / Long Beach / Los Angeles / Maritime Academy
Monterey Bay / Northridge / Pomona / Sacramento / San Bernardino / San Diego / San Francisco / San Jose / San Luis Obispo / San Marcos / Sonoma / Stanislaus



CAPISTRANO UNIFIED SCHOOL DISTRICT
San Juan Capistrano, CA 92675

December 8, 2014

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7t Floor
Sacramento, CA 95814

RE: LETTER OF SUPPORT FOR SADDLEBACK COLLEGE - AWARDS FOR INNOVATION IN HIGHER EDUCATION APPLICATION

Dear Selection Committee:

Capistrano Unified School District (CUSD) supports Saddleback College's application to the California Department of Finance for their *Awards for Innovation in Higher Education*. Saddleback College has demonstrated leadership and a passionate commitment to the educational success of the greater Orange County community. They have a history of innovation that has been recognized at both state and national levels including recognition for the development, implementation, and use of technological approaches to improve performance of their students in foundational mathematical courses. A number of research studies have shown the direct connection between performance in college-level mathematics and retention and graduation. An award to Saddleback College will help further the development and refinement of content knowledge, pedagogy, and technological tools that can be disseminated to colleges throughout the state to help ensure students succeed in math and continue to B.S/A degree attainment.

Saddleback College's district is also known as a pioneer and leader in introducing "game changing" technology aimed at developing systems that help support and guide students through the sometimes arduous task of enrollment, matriculation, registration, and receiving timely academic advisement. Their Student Success Suite (S³) is a construct of technological tools that provide personalized support systems that help students overcome a multitude of barriers essential to student success as described in item # 1 of their application. S³ continuously improves as the district seeks to mitigate or resolve several of the systemic barriers faced by students. These barriers include lack of specific academic plans and academic support; the need to provide students with information on behaviors and steps to enhance persistence and transfer; the need for on-going personalized and easily accessible information and prompting; and the lack of guidance on college enrollment process.

CUSD has a long history of collaboration with Saddleback College. Saddleback College and CUSD have most recently been working on their High School Partnership Program (HSPP). The HSPP

Capistrano Unified School District – Letter of Support for Saddleback College
Awards for Innovation in Higher Education • Page 2

seeks to improve student postsecondary performance by establishing a 360-degree partnership between Saddleback College, students, parents or guardians, and high schools, that will help students prepare for success after high school. By following recommended pathways and collaborative roles identified in the HSPP, Saddleback College can guarantee that a student will succeed in fulfilling their goals at an institution of higher learning, the workforce, or the military.

We look forward to continue working with Saddleback College as they seek to continuously improve student success and transfer rates for the students we mutually seek to serve. If you require additional information please feel free to contact me at 949-234-9203.

Sincerely,

A handwritten signature in black ink, appearing to read 'Krsten M. Vital', written over the printed name.

Krsten M. Vital
Superintendent



IRVINE VALLEY COLLEGE

5500 Irvine Center Drive, Irvine, CA 92618 | T 949-451-5100 | www.ivc.edu

December 19, 2014

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7th Floor
Sacramento, CA 95814

**RE: LETTER OF SUPPORT
SADDLEBACK COLLEGE - AWARD FOR INNOVATION IN HIGHER EDUCATION APPLICATION**

Dear Selection Committee:

Irvine Valley College would like to extend its support for Saddleback College's application to the California Department of Finance for their *Awards for Innovation in Higher Education*. Saddleback College, Irvine Valley College and South Orange County Community College District have worked collaboratively to create innovative technology tools that are helping students succeed.

The Student Success Suite (S³) software has garnered state and national attention for innovative tools which shorten the time to college completion and job attainment, thereby reducing financial burden on students and state and federal programs. Students are guided thoughtfully towards their goals using a focused, student-centered approach so they can transfer to a four-year college or enter the workforce more quickly and efficiently.

Most importantly, these tools can be customized to specific cohorts or used to help all students. This is an exciting feature as it can help Irvine Valley College identify ESL remediation pathways for our high Asian population or reach out to students who started but didn't complete registration, for example. S³ has the potential to improve the pathway to completion for millions of students.

An Award for Innovation in Higher Education could serve as a catalyst to share these tools beyond our colleges and district.

Sincerely,

Glenn R. Roquemore, Ph.D.
President



December 19, 2014

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7th Floor
Sacramento, CA 95814

RE: LETTER OF SUPPORT FOR SADDLEBACK COLLEGE - AWARDS FOR INNOVATION IN HIGHER EDUCATION APPLICATION

Dear Selection Committee:

South Orange County Community College District is honored to support Saddleback College's application to the California Department of Finance for their *Awards for Innovation in Higher Education*. Saddleback College and Irvine Valley College, with the visionary leadership of our District IT department and Board of Trustees, have developed innovative student success tools that have garnered state and national attention.

Our District is known as a pioneer and leader in introducing "game-changing" technology aimed at developing systems that help support and guide students toward their goals more quickly and efficiently. Our Student Success Suite (S³) software offers an array of technological tools to assist students with enrollment, matriculation, registration, and academic advisement. Students are guided thoughtfully towards their goals using a focused, student-centered approach that they help to develop as part of the design team.

To date, our district has invested \$4 million in these innovative tools. Our dream is to one day make some of our tools available to colleges and universities across the state and nation. We think it could be a game changer in addressing the needs of underserved populations or special cohorts. We believe that with some assistance, these tools could be scaled up to help other institutions meet or exceed their student success goals. Recently, we signed a collaboration agreement with Workday, Inc. to become a strategic influencer in developing Workday Student, the first major cloud-based enterprise resource planning (ERP) system for higher education.

An innovation award would help us fund new features that are currently staged for development. It would also add to our credibility in seeking partners to assist in developing additional modules to round out S³. We are committed to working with our colleagues to continuously improve student success and transfer rates.

Sincerely,

Gary L. Poertner
Chancellor



Irvine Unified School District

5050 Barranca Parkway, Irvine, California 92604-4652 • 949/936-5000 • FAX 949/936-5259 • www.iusd.org

January 6, 2015

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7th Floor
Sacramento, CA 95814

RE: LETTER OF SUPPORT FOR SADDLEBACK COLLEGE - AWARDS FOR INNOVATION IN HIGHER EDUCATION APPLICATION

Dear Selection Committee:

The Irvine Unified School District would like to extend its support for Saddleback College's application to the California Department of Finance for their *Awards for Innovation in Higher Education*. Saddleback College, Irvine Valley College and South Orange County Community College District have demonstrated educational excellence and a commitment to improving educational outcomes for the greater Orange County community.

The colleges in the South Orange County Community College District (SOCCCD) have a history of technological innovation that has garnered state and national attention. The District is known as a pioneer and leader in introducing "game changing" technology aimed at developing systems that help support and guide students toward their goals more quickly and efficiently. Their Student Success Suite (S³) is a construct of technological tools that assist students with the sometimes arduous task of enrollment, matriculation, registration, and academic advisement. Students are guided thoughtfully towards their goals using a focused, student centered approach.

The Irvine Unified School District has a long history of collaboration with the colleges in the South Orange County Community College District. The AB 86 grant collaboration is a recent example of our partnership.

We are committed to working with our colleagues throughout the region to continuously improve student success and transfer rates.

Sincerely,

A handwritten signature in blue ink that reads "Cassie Parham".

Cassie Parham
Assistant Superintendent, Education Services

BOARD OF EDUCATION

PAUL BOKOTA / LAUREN BROOKS / IRA GLASBY / MICHAEL PARHAM / SHARON WALLIN

TERRY L. WALKER, Superintendent of Schools

JOHN FOGARTY, Assistant Superintendent, Business Services / BPIANNE FORD, Chief Technology Officer

EAMONN O'DOHOVAH, Assistant Superintendent, Human Resources / CASSIE PARHAM, Assistant Superintendent, Education Services

IUSD . . . providing the highest quality educational experience we can envision.

January 6, 2015

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7th Floor
Sacramento, CA 95814

**RE: LETTER OF SUPPORT FOR SADDLEBACK COLLEGE - AWARDS FOR
INNOVATION IN HIGHER EDUCATION APPLICATION**

Dear Selection Committee:

The Tustin Unified School District would like to extend its support for Saddleback College's application to the California Department of Finance for their *Awards for Innovation in Higher Education*. Saddleback College, Irvine Valley College and South Orange County Community College District have demonstrated educational excellence and a commitment to improving educational outcomes for the greater Orange County community.

The colleges in the South Orange County Community College District (SOCCCD) have a history of technological innovation that has garnered state and national attention. The District is known as a pioneer and leader in introducing "game changing" technology aimed at developing systems that help support and guide students toward their goals more quickly and efficiently. Their Student Success Suite (S³) is a construct of technological tools that assist students with the sometimes arduous task of enrollment, matriculation, registration, and academic advisement. Students are guided thoughtfully towards their goals using a focused, student centered approach.

Tustin Unified School District has a long history of collaboration with the colleges in the South Orange County Community College District. Some of our most recent partnerships include the AB 86 grant collaboration and the Early College Program.

We are committed to working with our colleagues throughout the region to continuously improve student success and transfer rates.

Sincerely,



Kathie Nielsen
Chief Academic Officer
Tustin Unified School District



ORANGE COUNTY
WORKFORCE INVESTMENT BOARD
1300 S. GRAND AVENUE, BLDG. B, 3RD FLOOR
SANTA ANA, CA 92705-4407
PHONE: (714) 480-6500 FAX: (714) 834-7132

January 5, 2015

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7th Floor
Sacramento, CA 95814

**RE: LETTER OF SUPPORT
SADDLEBACK COLLEGE - AWARD FOR INNOVATION IN HIGHER
EDUCATION APPLICATION**

Dear Selection Committee:

The Orange County Workforce Investment Board is committed to establishing a comprehensive workforce development system for Orange County. We operate One-Stop Career Centers, satellite centers and support a host of training providers that include Saddleback College and Irvine Valley College in the South Orange County Community College District. These colleges and their district are strong supporters to career technical education and student success resources that make a significant difference in closing the skills gap in Orange County.

On behalf of the Orange County Workforce Investment Board, I offer my support for Saddleback College's application to the California Department of Finance for their *Awards for Innovation in Higher Education*. Saddleback College, Irvine Valley College and South Orange County Community College District have demonstrated educational excellence and a commitment to working with businesses.

Their Student Success Suite (S³) software has garnered state and national attention for innovative tools which shorten the time to college completion and job attainment, thereby reducing financial burden on students and state and federal programs. Students are guided thoughtfully towards their goals using a focused, student-centered approach so they can transfer to a four-year college or enter the workforce more quickly and efficiently. These tools can be customized to specific cohorts or used to help all students. These focused efforts help students attain work more quickly and employers thrive in the region.

College completion is a critical component in developing a skilled workforce. We applaud Saddleback College, Irvine Valley College and South Orange County

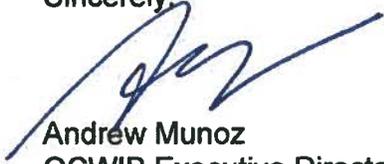
MISSION STATEMENT

**TO RESPOND TO THE NEEDS OF BUSINESSES, JOB SEEKERS AND STUDENTS THROUGH
AN INTEGRATED WORKFORCE DEVELOPMENT SYSTEM**

Community College District for their leadership and ongoing investment in developing tools that could be scaled and shared with other colleges.

An Award for Innovation in Higher Education could serve as a catalyst to share Orange County innovations statewide.

Sincerely,

A handwritten signature in blue ink, appearing to read 'AMunoz', written over a light blue horizontal line.

Andrew Munoz
OCWIB Executive Director

MISSION STATEMENT

**TO RESPOND TO THE NEEDS OF BUSINESSES, JOB SEEKERS AND STUDENTS THROUGH
AN INTEGRATED WORKFORCE DEVELOPMENT SYSTEM.**



**ORANGE COUNTY
BUSINESS COUNCIL**

2 Park Plaza, Suit 100 | Irvine, CA 92614 | P 949.476.2242 | F 949.476.0043 | www.ocbc.org

January 7, 2015

California Department of Finance
Education Systems Unit—Innovation Awards
915 L Street, 7th Floor
Sacramento, CA 95814

**RE: LETTER OF SUPPORT
SADDLEBACK COLLEGE - AWARD FOR INNOVATION IN HIGHER EDUCATION
APPLICATION**

Dear Selection Committee:

Orange County Business Council would like to extend its support for Saddleback College's application to the California Department of Finance for their Awards for Innovation in Higher Education. Saddleback College, Irvine Valley College, and South Orange County Community College District have demonstrated educational excellence and a commitment to working with businesses to address the skills gap.

Their Student Success Suite (S3) software has garnered state and national attention for innovative tools which shorten the time to college completion and job attainment, thereby reducing financial burden on students and state and federal programs. Students are guided thoughtfully towards their goals using a focused, student-centered approach so they can transfer to a four-year college or enter the workforce more quickly and efficiently. These tools can be customized to specific cohorts or used to help all students. These focused efforts help students attain work more quickly and employers thrive in the region.

College completion is a critical component in developing a skilled workforce. We applaud Saddleback College, Irvine Valley College, and South Orange County Community College District for their leadership and ongoing investment in developing tools that could be scaled and shared with other colleges

An Award for Innovation in Higher Education could serve as a catalyst to share some Orange County innovation statewide.

Sincerely,

Alicia Berhow

Vice President of Workforce Development and Advocacy

District-wide Strategic Plan (2014-2020)
Goal 1 - SOCCCD will foster an environment characterized by creativity, <u>innovation</u> , respectful interactions and collaboration.
Goal 2 - SOCCCD will <u>promote students' success</u> by enhancing the teaching and learning environment.

District-wide Technology Plan (2014-2020)
Goal 1 - SOCCCD will <u>remain a national leader in creative educational technology solutions</u> .
Goal 3 - SOCCCD will <u>continue to be a leader in technologies supporting student success and enhancing the teaching and learning environment</u> .
Goal 4 - SOCCCD will <u>advance its technology and data collection to better understand</u> our community and career pathways of our students.
Goal 5 - SOCCCD will continue to <u>strengthen institutional efficiencies through technological infrastructure</u> .

Student Equity Plan 2014
Objective I.1. – Saddleback College will work to ensure <u>needs of adult learners will be identified</u> and that staffing and programming will be provided to enable this population the opportunity to meet their educational goals.
Objective I.2 - Outreach activities and materials will be designed to reach out to those individuals who are economically disadvantaged in order to support increased awareness of resources and assistance with application for financial aid opportunities. <u>Research will provide precise data about age, employment status, ethnicity, and average income, active military and veterans, and college access points.</u>
Objective I.4 - Further <u>research to determine the possible reasons for the disproportionate impact</u> for White, Non-Hispanic Students.
Objective II.1 - Saddleback College will work to ensure that the <u>educational needs of African-American students have been researched and identified</u> . That targeted outreach, training and other support programs have been identified and implemented to assist this population of students with the best possible learning environment that supports course completion.
Objective IV.1 - <u>Expand student services</u> targeted to “gap” students (those students who took one or more years off after graduating high school before entering college for the first time) and extensively publicize these services.
Objective V.1 - Students of all ethnicities <u>showing behavioral intent to transfer</u> will be given opportunities to meet their goals.

Student and Stakeholder Engagement

Student Perspective

Particular attention is paid to the student perspective as we hire a group of students to act as our Student Design Team each year. They are in the room from the very beginning of a project and guide us as we develop the requirements, discuss the features, design the user interface and deploy the systems to the college. We train them in the use of software usability testing system and they assist us in focus group sessions to refine the user interface and find critical bugs before they impact the college. They also write and produce tutorial videos to assist students in the use of the new systems.



Members of the student design team discuss revisions to the MySite home page.



While a new system is under development the student design team assists us in usability testing to ensure the adoption of the system is as smooth as possible. In some cases we will conduct focus groups from various student groups on campus. In other cases the student design team will use Morae usability software to more systematically identify potential areas of confusion. This not only provides the development team valuable feedback it also trains the students in valuable technical skills. We also regularly send out surveys to the college community get feedback on our systems and solicit new ideas.

Figure 1 - Ari Nur, a member of the 2013/14 Student Design Team, interviews students at the MySite booth.

Broader Engagement

SOCCCD staff regularly engages the broader educational community by presenting S³ systems at regional, state and national conferences. Conference presentations from the last three years include:

2012

- Educause West/Southwest (Portland)
- Innovations 2012 (Philadelphia)
- CISOA (Ontario)
- RP Group (Pomona)
- Learning Analytics (Vancouver, Canada)
- Blackboard World (New Orleans)
- Educause (Denver)

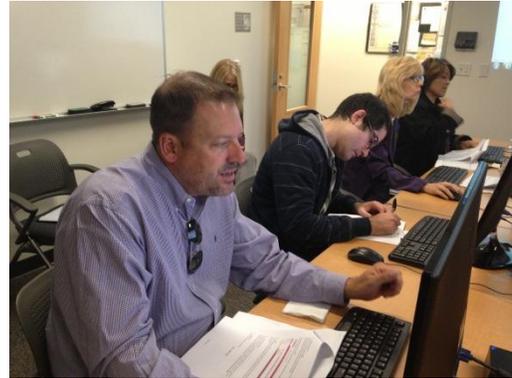


Figure 2 - Members of the college community participate in a UAT (User Acceptance Testing) session.

2013

- Campus Technology Forum (San Diego)
- Educause (Anaheim)
- CCCEOPSA (Los Angeles)
- CSSO Region 8 (Fullerton)
- CCLC (San Francisco)

2014

- CISOA (Anaheim)
- Innovations 2014 (Anaheim)
- Campus Technology Forum (Long Beach)
- Online Teaching Conference (San Diego)
- Educause (Orlando)
- CCLC (Rancho Mirage)

Federal Briefing

In February 2014, Vice Chancellor Bob Bramucci, IT Director Jim Gaston and student design team member Ari Nur conducted a federal briefing at the U.S. Capitol in Washington, DC to showcase our Student Success Suite (S³). Attendees included legislative representatives from California; Senate and House education committees; Department of Education; business leaders from Gates Foundation and Workday; and educational organizations such as the American Association of Community Colleges. The interactive session provided a good opportunity for input and questions. (See Announcement and Photo Below)

Paving the Path to College Completion

How South Orange County Community College District is using technology to improve student success and college completion.

MAP (My Academic Plan)

Student Success Dashboard

Predictive Analytics

Sherpa

You're Invited to a Briefing

Feb. 27, 2014 • 12:00 - 2:00 pm
Rayburn 2168, Gold Room
Lunch will be served.

RSVP: Dana DeBeaumont, Capitol Advocacy Partners • 202.352.6856 • ddebeaumont@verizon.net

