

STUDENT SUPPORT SERVICES FOR ONLINE LEARNING RE-IMAGINED AND RE-INVIGORATED: THEN, NOW AND WHAT'S TO COME

**LESSONS LEARNED FROM THE CALIFORNIA
COMMUNITY COLLEGE SYSTEM (CCC),
THE LARGEST SYSTEM OF HIGHER
EDUCATION IN THE U.S.A.**

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CONTEXT

There is no question that technology has revolutionized higher education in the United States as well as the rest of the world. For more than two decades, online education has steadily grown in both academic acceptance and actual course enrollment. As such, online education at most U.S. colleges and universities has been mainstreamed. It is now a viable and accessible option for potential students who may not be able or willing to attend on-campus, face-to-face classes. Still, even as online enrollment has steadily increased, (in 2015-2016 California's Community College system served 2.4 million students in 114 institutions, with 798,764 students enrolled in at least one online course making it the largest system of higher education in the U.S.), there is a noticeable achievement gap between online and face-to-face students, with face-to-face faring better. Additionally, there are significant achievement gaps among the diverse online students themselves, with completion rates being lower among minority and disadvantaged groups.

Through the work of the Online Education Initiative (OEI), a collaborative effort among the California Community College system (CCC), what has become glaringly apparent is that in order to close the achievement gaps in both categories, not only is there a need for a systematic approach to quality online course design and teaching, there is a need for purposeful investment in the design and delivery of effective online student support services that help learners develop the competencies and attributes required for successful online study and lifelong learning.

Successful online learning demands much more of students than understanding how to navigate a learning management system (LMS). It can be argued that the need for deliberate attention to providing support is even more critical to the success of online students than those on campus because of their greater diversity, greater need for self-management and technical self-efficacy, information literacy and the potentially isolating impact of the online learning environment. Helping students become autonomous self-regulated learners requires an explicit effort on the part of institutions to both understand the challenges presented by online learning and how they can help students develop the skills to meet them (Brindley, 2014).

As is the case for on-campus services, a one-size-fits-all approach to online services will not meet the needs of all students. Students may choose to participate in support services exclusively on campus, exclusively online, or a blend of both in much the same way they choose to take their courses. Online students need online services but increasingly, on-campus students are also choosing or need to use online student services for flexibility to accommodate work schedules, family responsibilities, or other demands. All of these learners need access to services outside of traditional campus office hours from their homes or another off-campus location.

Most students are accustomed to using technology on demand – in their personal and social lives. This creates an expectation for 24/7 online access not only to their courses, but also to the services that support their success. Some students are beginning to consider the availability of quality online student services as a critical factor when selecting a college or university. Their expectations are not only reasonable but may become a required ingredient in the recipe for success in the online environment. Services for all learners will improve when institutions develop student centered, dynamic online student support services.

Starting from the assumption that online students require all the same services that are needed by students taking courses on campus plus a few additional ones unique to their learning context, institutions offering online courses and programs are faced with the immense challenge of re-thinking what types of support they offer, the accessibility of services, and how to make investments in student support that will have the greatest impact on student success. This paper describes a unique collaboration among California institutions that is addressing this challenge by creating a virtual hub of student support resources and services that can be accessed at a time and place that is convenient to the learner.

A virtual hub of student support resources and services

The California Online Education Initiative (OEI) and the California Community College (CCC) System are developing and implementing a new approach for incorporating online student support services into each of the 114 member college's distance education program. The vision is to encourage participating colleges to develop online student support service hubs as a part of the larger online education ecosystem. This paper describes what is being achieved through innovative multi-institutional cooperation and examines the efforts of the OEI with regards to some specific programs that are critical in the formation of a highly interactive student support service hub, namely online readiness, online counseling, online library services, online tutoring, online proctoring and online student equity strategies. The ambitious goal of OEI is to encourage California Community Colleges to intentionally redesign and fully incorporate online student services, which address the needs of the “whole” student— as an integral component of the learning environment.

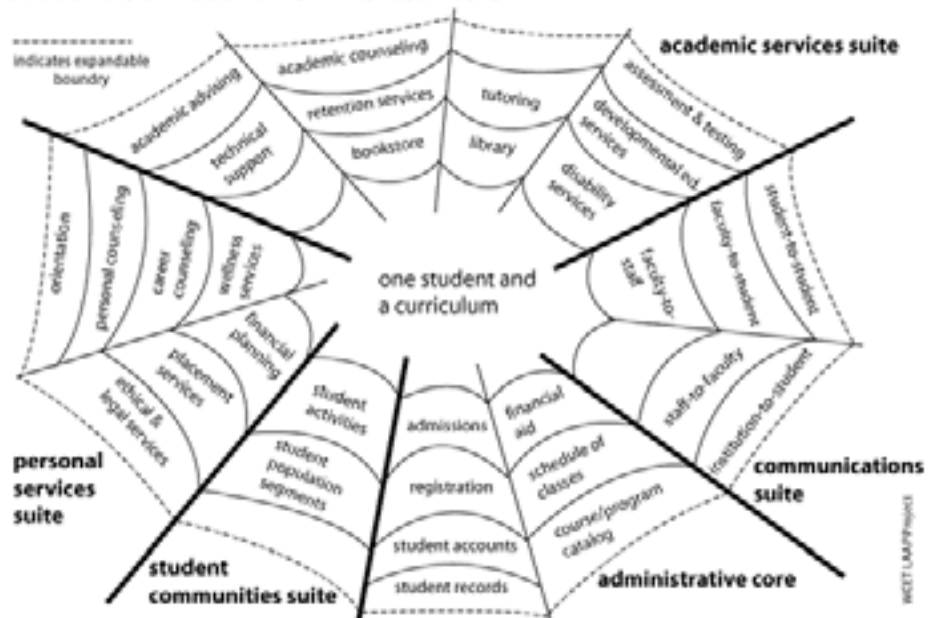
THEN – HISTORY AND BACKGROUND

Advances in technology have facilitated rapid growth of online courses and programs since the 1990's but investment in accompanying online services for students has been much slower. In 2002, in recognition of the need to better support online learners, a ground-breaking aspirational blueprint for the development of a broad scope of web-based online student services was published by WICHE Cooperative for Educational

Technologies (WCET). Entitled, “Guidelines for Creating Online Student Services,” (Shea & Armitage, 2002), it used a spider web graphic to illustrate the necessary scope and cross-functionality of services, pointing out that although colleges and universities have varied organizational structures (for student affairs, academic affairs, administrative services, information technology, and marketing), it is crucial for all stakeholders within an institution to collaborate to seamlessly deliver online support services to the learner who is remote from these structures.

As the WCET Spider Web illustrates, if institutions identify and make learner needs their central priority, students have an easier time finding the information and support that will help them achieve academic success. This requires collaboration across departmental reporting structures that are designed to reflect the needs of students with a virtual one-stop, remotely accessible student services hub.

Student Services for Online Learners



To better conceptualize the scope of online student services, WCET identified the following categories of support:

- **Administrative suite** represents business transactions that students are accustomed to completing online such as paying fees, registering for courses, changing courses, and requesting credit assessment.
- **Academic suite** includes online libraries, bookstore services, technical support, online academic advising, online tutoring online and online assessment and testing.
- **Personal services suite** includes career and placement information and personal counseling, health and wellness services, ethical and legal services and plagiarism, student

authentication, and other academic honesty services.

- **Communications suite** provides remotely delivered faculty-to-student, institution-to-student, and student-to-student engagement and relationship building. Social networking and other web and cloud-based technologies have altered the way institutions communicate with all stakeholders.
- **Student communities suite** contains student activities, an essential component of the college experience for many traditional students and population segments. With isolation being a key contributor of students not succeeding in their online courses, online clubs, student government, college newspapers mentorship and support groups are particularly important to consider.

WCET's approach to describing and organizing online student support highlights the importance of conceptualizing services and resources in a purposeful way, that is, in support of the success of the student by focusing on meeting their needs and helping them to develop the competencies, attributes, and knowledge to be self-regulated learners. Wherever possible and appropriate, technology is used to facilitate easy to use self-service transaction completion. With more complex services where interaction with a student support professional is necessary, technology is used to facilitate two-way communication. Evaluating the level of interactivity available for any particular online student service is one way to measure the quality of that service and whether that online service is meeting its stated goal.

Shortly after the publication of WCET Guidelines, The Center for Transforming Student Services (CENTSS) developed an innovative audit tool that provided a framework and systematic process for institutions to evaluate and plan for improvements to both the content and the presentation of 31 web-based online student services (Crawley, A., 2012, p. 193-198). The audit tool defined 5 generations of quality including detailed criteria with which to evaluate individual services.

- Generation 1 was when no evidence of a particular student services can be found on the website.
- Generation 2 was text-only information about services presented according to the organizational structure of the institution.
- Generation 3 was information presented based on student needs (easier to navigate).
- Generations 4 and 5 were online student services that were interactive and customizable and that allowed students to complete transactions, make decisions, and save information for future use (with Gen 5 having the capacity for greater interactivity, personalization, and customization).

Although the CENTSS is no longer active and this audit tool is no longer available, it is offered as an example of how institutions can set goals,

evaluate and improve their online student services. Using this sort of analysis helps institutions identify gaps that exist between current online student services and what they aspire to offer their students. The overarching goal is to provide students a smooth online experience that improves their chances for academic success by making it easy for students to gain access to the services they need when they need them. A more full description of the audit tool can be found in Crawley's (2012) book *Supporting Online Students* (pp. 73-77 and 193-198), and a short description and graphics can be found here:http://insidemc.montgomerycollege.edu/attach/cf01154f-2c1e-9c24-f115-f3688dbca34b/CENTSS_Audit_Trends.pdf

While the CENTSS audit tool was an effective and convenient method for voluntarily analyzing and improving online student services, the Regional Accrediting Commissions, Council for Advancement of Standards in Higher Education (CAS), Student Affairs Associations and others have delineated and, in the case of the Accrediting Commissions, have defined criteria for and mandated inclusion of quality online student services for colleges and universities in the U.S. that offer online courses and programs.

Despite the development of guidelines and examples to develop high quality online student services from organizations such as WCET and CENTSS, currently most American colleges have not ventured beyond offering their online students static information on text-based webpages (CENTSS Generation 2). Very little programmed interaction or real-time two-way engagement is apparent. Those colleges that have begun delivery of online support services via web portals have not maximized the full potential of these tools resulting in an end user experience that has not appreciably changed or improved.

Elevating online student services to the next level

Colleges that have just begun exploring the possibilities of active engagement are doing so with good intent to provide better support to their students. However, the use of technology to deliver student support services is as complex and expensive as it is for delivery of courses. What is still lacking is an industry standard that will help institutions to choose appropriate technologies, and effectively design and develop services that take advantage of the opportunities that new technologies offer for engagement and two-way communication. Without the significant resources and expertise required to acquire and effectively use the right technology and innovation, and without common online student support services industry standards governing both design and delivery, institutions are likely to remain at CENTSS Generation 2 or 3 delivering primarily static information which is not considered comprehensive, interactive online student services.

Colleges in the U.S. and elsewhere are aware that as demand for

post-secondary education grows, student enrollment and diversity are increasing and many students are entering under-prepared for academic work, lacking technological proficiency (Bruso, 2001), without clear goals, and burdened by financial difficulties. Far too often, outcomes are bleak with students not completing a credential or not being able to realize their goal of transfer to a higher credential or transition to employment. These challenges are amplified in the context of online learning and require a response that goes beyond the resources of most single institutions.

To elevate online student services to the next level and truly meet the needs of the online students of today and tomorrow calls for a shift in mindset and design. The shift in mindset involves recognition of both the complexities and challenges of online student support services and the affordances of new technologies. The design must include both high-tech and high touch. High tech means that many straightforward transactions such as registration and fee payment can be made self-serve. A highly navigable and personalized student portal can be used to carry out these routine operations that students would prefer to self-manage. High touch speaks to the critical requirement for a human element in student support, using online technology to facilitate communication, not replace human intervention for complex interactions such as guidance and counseling. On campus, student services professionals are available to assist students develop in cognitive, psychosocial, and social domains. The importance of interaction with these professionals is no less important for online students who also need help with development of competencies, attributes, and knowledge that are necessary for persistence and academic success. The number one reason students choose to take online courses is for convenience. They expect that the services that support their success will be delivered in an equally convenient format as their courses.

NOW – THE EXAMPLE OF THE CALIFORNIA COMMUNITY COLLEGES AND THE ONLINE EDUCATION INITIATIVE

With 114 community colleges existing within 72 community-college districts, California's Community College system (CCC), **as the largest system of higher education in the United States**, serves more than 2.4 million students providing a wide variety of options to meet educational and career goals. More importantly, with one out of every five community college students in the U.S. attending a California Community College, and one out of every three CCC students taking at least one online course, the opportunity to have a positive impact on outcomes is significant! Discussion around the quality and structure of available online student support services has been and continues to be front and center in how to provide a high quality learning environment that helps students achieve their goals.

The California Community College Online Education Initiative (OEI) is a multi-million-dollar project, state-funded through the California Community College Chancellor's Office. The OEI represents a comprehensive and collaborative program that leverages best practices and technology to significantly increase the opportunity for higher education degree attainment in California. The key to the OEI's success thus far has been strong involvement of stakeholders throughout the CCC system. The OEI Advisory Committee is represented by leaders from all facets of the CCC system, including faculty, distance education coordinators, support staff, administrators, and students. The initial implementation involved 24 pilot colleges representative of the diversity in the system. The Consortium, initially composed of representatives of the pilot colleges, forms the advisory body for operational aspects of the OEI. The OEI management team collectively has more than 75 years of CCC experience.

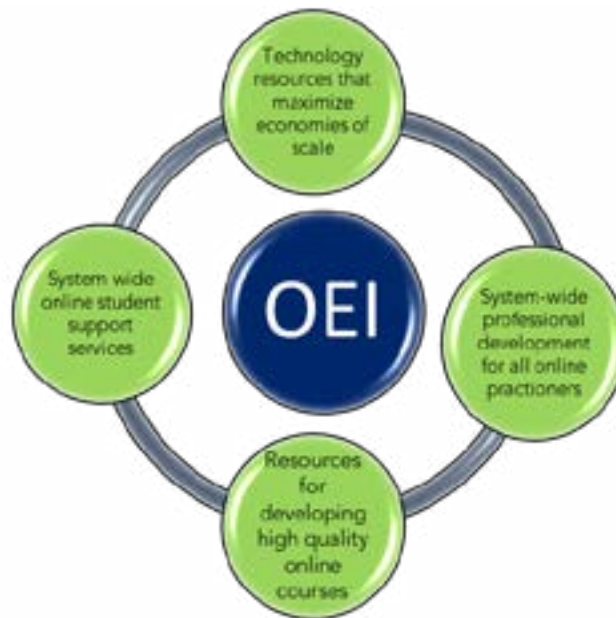


OEI Governance Structure (ccconlineed.org)

The online education ecosystem

The OEI ecosystem is an organized and directed system-wide approach, whereby all 114 community colleges, are working together to ensure online students are fully supported, thus eventually closing the achievement gap between online and face to face. Student support services have been formally recognized as one of four components needed to improve the CCC colleges distance education program.

Through their large scale collaboration, the OEI and the California Community Colleges now have the resources, expertise, and technology to re-imagine and redesign their online student services. The OEI's goal, in partnership with the 114 California Community Colleges, is to work toward redefining the current model of student support services to more closely



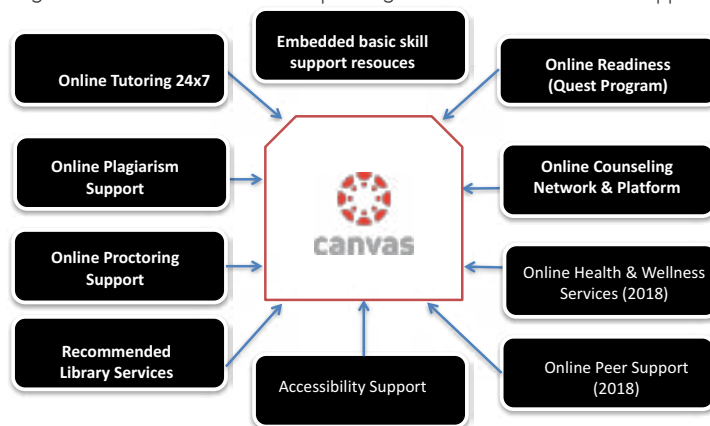
resemble the WCET support spider web described earlier. The expected outcome is a purposeful, dynamic, and interactive approach to providing online student support services, in keeping with Generation 5 on the CENTSS evaluation scale.

The uniqueness of the OEI's approach is that the concept involves the use of a common course management system (CMS) as the location for all of the participating colleges' online student service hubs. Each hub will be accessible via a common learning management platform, whereby students, faculty, counselors, tutors and staff needing to engage with each other will always do so in a familiar environment regardless of their college. The platform and its functions will allow for Learning Tools Interoperability (LTI) and local integration of additional technologies such as social media that provide opportunities for a variety of interactive services.

OEI has begun this work by utilizing the Canvas learning management platform and encouraging colleges to design student support hubs to include LTI integration of an online counseling platform, online tutoring, online proctoring, library services, mental health student support resources, and online student readiness tools and resources. To promote the concept and to provide *equitable access*, the OEI has leveraged the strength of its membership to broker statewide licenses with numerous partners such as Canvas: to serve as the Common Learning Management system, Link-Systems International for tutoring services, VeriCite for plagiarism detection, Proctorio for online Proctoring Services, Smarter Measure for online readiness diagnostic assessment for the OEI online readiness program, Quest of Online Success and Cranium Café powered by ConexEd for online counseling services. What would be out of the reach of a single institution is now being made possible through collaboration. (See <http://ccconlineed.org/student-success-resources/> for links to the open source resources and tools that have been created to date.)

INTEGRATED ONLINE SUPPORT SERVICES HUB

Boosting retention and success while expanding access to online education opportunities



California Community Colleges Chancellor's Office

Online equity in student services

From its inception, the OEI has focused on offering student support services that allow all students equitable access, and an increased chance of success in the online environment. The services are intended to be easily accessible and purposefully designed to help students acquire the competencies they need to meet identified challenges and overcome barriers to persistence. Improving student outcomes, particularly for less advantaged students who are choosing to study online, requires strengthening institutions so that they have the structures and resources to foster learner success. Currently, the OEI provides the community college system with access to free or low-cost use of a variety of online platforms for counseling, tutoring, proctoring and online student readiness multimedia resources. Outcome data from the use of these services help inform decision-making around the uses of these services for equity purposes.

The OEI Online Equity Work Group is focusing on developing an equity framework to assist colleges with their Student Services hub by embedding equity-minded principles and practices into student services and the overall online campus environment. The following are areas where embedding online student equity practices may be included in the one-stop student services online hub:

- An Online Student Withdrawal Survey – will be used to capture students' reasons for dropping online courses. An electronic student withdrawal survey is being developed that will allow students to self-report. Data from this survey will be gathered and scrutinized for common reasons among high-need student groups.
- Online Counseling - An equity module is being developed for online counseling services to guide counselors in the process of

embedding equity principles and practices in the designing and delivery of online counseling services. Counselors will learn equity principles and practices through instruction (rubric, worksheets, checklists), case studies, and role-play.

- Online Tutoring – An equity-based training module is being developed for online tutors to guide tutoring professionals in the process of embedding equity principles and practices in the design and delivery of online tutoring.
- Access Services – Equity-based strategies to provide and promote inclusion and access to online student services are being provided, along with professional development and trainings for online help-desk staff working within the student services hub.

Three examples of online student services developed for the CCC system

In this section of the paper, we examine a few examples of the services viewed as critical components of the hub.

1. Online student readiness orientation

Based on ample evidence that many prospective online learners are under prepared for this demanding mode of study, the first OEI online student service developed for the CCC system is a comprehensive readiness program called Quest for Online Success (Quest). This program is composed of eleven engaging, fully accessible multimedia tutorials and four interactive tools developed under a CC-BY Creative Commons license. These resources are available from <http://apps.3cmediasolutions.org/oei/>

During spring 2015, these tutorials, along with SmarterMeasure (a diagnostic assessment), quizzes, and supplemental learning materials were built into an LMS shell to develop the comprehensive readiness program: Quest for Online Success. It contains two pathways, one for novice and another for experienced online learners. After three pilot semesters that included evaluation and improvements, the Quest program became available, free of charge, to all 114 CCCs. Distance Learning coordinators, teaching faculty, and counselors use a variety of approaches to connect students to the Quest materials. Some schools have developed a system of badging which they hope to eventually connect to their student information system to create a method of certifying when students have completed each of the Quest pathways. Counselors are using the program to help students decide whether online learning is right for them. Teaching faculty use Quest as part of course orientation assignments and as a resource referral throughout the term.

In order to meet the diverse needs of all students, the multimedia

tutorials are offered in three versions: a fully accessible, html-5-based multimedia presentation, a text-only script, and an audio-only MP3 version. The multimedia presentation is delivered from Able Player, an open source product that itself has many additional innovative features, such as an interactive transcript built by combining time-synchronized content from the chapters, captions, and description tracks, as well as a set of preferences dialogs that enable users to customize the appearance of closed captions and define keyboard shortcuts that can be used to operate the media player from anywhere on the web page.

The multimedia tutorials were developed in this way to create a product that is fully accessible to students who are blind or have visual impairments, who use audible screen readers, Braille output devices, or other assistive technologies to interact with computers; students who are deaf or hard of hearing who depend on transcripts and captions in order to access audio and audiovisual content; students who have physical disabilities that prevent them from using a mouse, so instead they operate the computer using keyboard alone, speech recognition systems, or other alternative input technologies; and students who have dyslexia or other learning or cognitive disabilities and therefore benefit from multimodal learning experiences that engage multiple senses.

The ultimate goal of the Quest program is to improve the success rates of CCC online students through building specific competencies and attributes such as confidence, self-management, and technical self-efficacy. While there are many metrics to measure online success, the one that continues to haunt us is the gap between online and on-campus rates of course completion so we want to make sure that the services offered are building the skills needed for persistence. The Instructional Technology Distance Education 2014 Survey Results tells us that nationally, online community college student retention is 8% lower than face-to-face instruction. The intent is to narrow this gap.

To that end, in partnership with the Research and Planning (RP) Group, we measure student satisfaction with and helpfulness of the Quest program. For fall 2016, 83%-96% of the students participating in the Novice Student Pathway strongly agreed or agreed that SmarterMeasure (the diagnostic assessment of online readiness), an Introduction to Online Learning, and Getting Tech Ready modules helped them be better online learners. 73%-89% of the students participating in the Experienced Student Pathway reported they strongly agreed or agreed that the Career Exploration, Educational Planning, Instructional Support, Personal Support, and Financial Planning modules helped them be better online learners. Students following both pathways participate in the Becoming an Effective Online Learner module which includes Organizing for Online Success,

Online Study Skills, Time Management, Online Communication Skills, and Online Reading Strategies tutorials. Students consistently rate this module the highest (87%-96%) for this evaluation period. These factors are most closely associated with self-regulation and other competencies that are predictors of online success.

2. Online counseling

The California Community Colleges Board of Governors, in a 1979 task force report on counseling, addressed the multidimensional nature of counseling and its importance to student success stating that, “the mission of community college counseling and guidance is to assist the individual with decisions which affect educational, vocational and personal goals, and to provide appropriate support and instruction which will enable the individual to implement these decisions.” (Farland & Hirshinger, 1979). Providing counseling online does offer some challenges but is a critical component of the student services hub as counselors play a critical role in providing timely interventions that can make the difference between a student persisting or dropping out.

By leveraging and partnering with a technology vendor, ConexED, whose focus is technology in student services; the OEI has been able to support the CCC system in developing a robust online counseling program that maintains the integrity of the college counseling profession, while addressing the needs of students when online. The California Community Colleges Online Counseling Network (CCC-OCN) offers colleges the resources required for all their students to have access to high quality counseling services in an online environment. This work conforms to regulations regarding equity of student support services in distance education.

This OEI contribution to the hub concept is as follows:

- A uniform approach to online counseling developed in collaboration with the OEI Steering Committee and California Community Colleges wishing to participate in the pilot program;
- An online counseling meeting and collaboration platform Cranium Café provided by ConexED;
- A community of online counselors from participating California Community Colleges who are trained in working with online students utilizing the same platform;
- Online Mental Health and Wellness counseling; and
- Counselor professional development training and materials that are aligned with the National Board of Certified Counselors standards for distance counseling professionals.

3. Online library resources

One of the critical skill sets necessary for successful lifelong learning is information literacy: how to find information, evaluate it, distill it and apply it. Learners need online library services that not only make resources accessible but help them acquire the skills necessary to find the resources they need and how to use them effectively and ethically. This can be accomplished with services such as access to reference librarians in real time, and self-serve online tutorials that address competencies such as how to define a topic, how to search and critically evaluate sources, and how to use sources effectively without plagiarizing. In collaboration with the CCC Council of Chief Librarians and representatives from the Academic Senate of CCC, an OEI Steering Committee work group developed guidelines and effective practices for California Community Colleges to integrate library resources and services into the online student services hub via the Canvas CCMS. These guidelines can be found here: http://ccconlineed.org/wp-content/uploads/2017/02/Creating-a-Library-Presence-in-Canvas-CCL-10-28-16-_A11Y.pdf

Evaluation: Early data show that this approach is paying off

The OEI and CCC's approach to an online holistic student support system is comprised of easily accessible services that are designed to help learners acquire critical skills and competencies, and build their confidence and resilience. In doing so, we aim to significantly boost retention and success in online courses and expand access to online educational opportunities across California. The early data show that this approach is paying off. According to a recent report by the Research and Planning Group for California Community Colleges (Nguyen & RP Group, 2017) that looked at the latest data available (2015-16), "In online course sections that piloted OEI support services at colleges during 2015-16, the average student success rate was 68.8 percent – 2.9 percentage points higher than the overall online course success rate at the pilot colleges, and 3.9 percentage points higher than the average online course success rate statewide" (Nguyen, 2017).

The OEI and the state of California hope to expand evaluation efforts, not just on the performance of individual services but as an evaluation of the success of the entire concept. Nevertheless, measuring the effectiveness of a systematic approach to providing online support services can be challenging, because much will be dependent upon the level of output by each college. In the early days, colleges and universities were able to claim quality if they merely had brochure type information on their website describing campus-based resources and services. This is no longer good enough. It is promising that retention rates appear to be improving for those students who have access to OEI services and this should be an encouragement to colleges in the system to actively take

advantage of these resources. If the intention is to help students acquire the skills necessary for academic success and lifelong learning, methods for gathering evidence of the results of these efforts have to be developed. The OEI is embarking upon an innovative engagement study that will combine data from three components of the Quest/Readiness for Online Learning program (Canvas, Smarter Measure, and the multimedia tutorials) with the goal of measuring impact of this service.

An important part of the OEI agenda is to work with colleges to help them realize that the most critical first step to developing and/or improving online student services is an overall evaluation of their current level of online service to develop baseline data. This includes an environmental scan and needs assessment within a college's student services division, including an assessment of the support requirements of their online learners. Through this process, colleges can discover that it is not necessary to develop a whole new range of services for online students. Often support already exists at the campus that can be made accessible to online learners.

As the evaluative reports continue to reveal success with the holistic approach, another aspiration of the OEI is to take up where CENTSS left off. Reestablishing industry specific guidelines—based on research and data—for the design of quality online student support hubs will increase the pace of the adoption rate among colleges and universities.

WHAT'S TO COME – HIGH QUALITY ONLINE LEARNING EXPERIENCES AND IMPROVED OPPORTUNITIES FOR SUCCESS FOR STUDENTS

While most post-secondary institutions have rushed to increase access to a more diverse student population by offering online courses and programs, many fewer have re-designed their student services for online accessibility. Consequently, many learners who are under-prepared and lack the necessary skills to tackle the demands of online learning are left with minimal or no support outside of teaching, and online faculty are without referral points for online students who are struggling and unable to access campus-based services. It is understandable that individual institutions are struggling with the responsibility of providing a wide range of accessible support services to both on-campus and online students but the risk of not taking action is a widening achievement gap.

CCC and OEI provide a model of a unique multi-institution collaboration that is building the capacity of individual institutions to offer high quality online learning experiences and improved opportunities for success to their students that would otherwise not be possible. As OEI continues to scale up its student services and more colleges in the system take up the opportunity to make them available to their students, increasing numbers of online learners will have access to support and tools that can improve their online learning experience, help them become skilled lifelong

learners, and improve institutional retention rates. It is still early in the process but initial evaluation data indicate a positive impact on course completions. Continued and more nuanced evaluation of the impact of the services will be used to improve support, and services will be expanded according to identified needs and resource availability.

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