ENSURING AN EFFECTIVE ONLINE PROGRAM: A FACULTY PERSPECTIVE

ONLINE EDUCATION COMMITTEE 2017-2018

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Introduction

From the time the first fully online course was taught in the California community colleges more than twenty years ago, the educational landscape has changed dramatically. What was once considered distance education -- one-on-one correspondence that utilized pen, paper, and the post office as the sole channel of communication between pupil and teacher, limited in content, desultory, and educationally disparaged, has evolved to enable students to engage their instructors and their fellow students in interactive online environments in which content is delivered to the student through varied means. The development of this technology, combined with the andragogy that has advanced alongside it, has led to the creation of courses that can rival and even surpass the in-person classroom in positive student experience, rigor, and efficacy. In short, distance education has evolved from correspondence courses to a legitimate instructional modality in the form of online education.

The purpose of this paper is to address the need for guidance on professional standards for educational practices in online education. Since 1995 the Academic Senate for California Community Colleges (ASCCC) has provided leadership in the introduction and successful implementation of distance online education. During this time, the ASCCC has played a leading role in shaping policies and procedures for distance and online education in order to ensure that students are receiving the most effective educational experience possible. At the Spring 2016 Plenary Session, the delegates adopted Resolution 11.01 (S16) calling for an update on the best practices for online education:

> Whereas, The creation of educational programs, including professional development, technology, and curriculum standards, is an area of faculty primacy regardless of modality, and an increasing number of colleges are creating or expanding online programs in response to student interest in online courses, degrees, and certificates;

> Whereas, in order to be effective in serving students, high quality online educational programs require sufficient resources, including infrastructure, technology, professional development resources, and student support services, all of which are needs that may be identified through local program review processes, institutional planning and budget development processes, and faculty development processes, each of which is a matter of local senate purview;

Whereas, Since the publication of the Academic Senate paper *Ensuring the Appropriate Use of Educational Technology: An Update for Local Academic Senates* in 2008, substantial advances in online education have occurred in the areas of technology, pedagogy, and student support services, including those promoted through the efforts of the California Community Colleges Online Education Initiative; and

Whereas, The Academic Senate for California Community Colleges is the legal representative of faculty on academic and professional matters and therefore has primacy in providing professional guidance to the field on the elements of high quality online education programs, including curriculum, student support service needs, infrastructure, technology, and faculty professional development;

Resolved, That the Academic Senate for California Community Colleges, in order to provide guidance to local senates and colleges on best practices in online education programs, update the 2008 paper *Ensuring the Appropriate Use of Educational Technology: An Update for Local Academic Senates*.

Rather than attempting to update the 2008 paper on Educational Technology, as called for in the resolution, it was decided that given the recent and fast-moving developments in distance and online education, the best approach would be to write a new paper exclusively about **online** education. This new paper will address several aspects of online education, including suggestions for local senates when looking to adopt effective practices for online education, interacting with student services, creating and ensuring practices around accessibility, developing curriculum designed to promote student success while maintaining sufficient rigor, and equity in the online environment.

This paper is intended to be a more a principled paper about online education, as opposed to a paper covering all of the practices within online education.   Given the rapid changes occurring within the realm of online education, it was determined that it would be better to write a paper that could stand the test of time rather than something that would need to be updated on an annual basis. Additional resources for faculty teaching courses online are planned, as well as the development of a repository of information that will be updated and changed as the field of online education changes.

It is important to recognize that the term "online" is being used deliberately, to differentiate from traditional correspondence courses and from other forms of distance education.

- Correspondence education is defined in the Code of Federal Regulations as "education provided through one or more courses by an institution under which the institution provides instructional materials, by mail or electronic transmission, including examinations on the materials, to students who are separated from the instructor" (34 C.F.R. § 602.3). These courses have limited interaction between the instructor and the student, contact is neither regular nor substantive, and contact is primarily initiated by the student. These courses are usually self-paced and do not qualify for federal financial aid.
- Other forms of distance education include courses conducted through television broadcasts or cable channels and courses in which videos or other media forms are used. While there are still colleges who use these forms of distance education, the majority of distance education at this time is more correctly defined as online education, whether in a fully online format or as a hybrid course. For these reasons, this paper will focus exclusively on online education.

It is also important to understand the different definitions of online education that appear in Title 5, the Accrediting Commission for Community and Junior Colleges (ACCJC), California Education Code, and federal regulations under the Department of Education (DOE). Title 5 §55204 defines distance education by referring to the need for "Regular Effective Contact" between students and faculty, while the federal guidelines from the Department of Education Code of Federal Regulations Title 34 §600.2 require "Regular and substantive interaction between the students and the instructor, either synchronously or asynchronously." The ACCJC has used the federal definition of distance education in its instructions to colleges regarding accreditation standards. The Academic Senate for California Community Colleges has long called for a reconciliation of the terminology used, most recently in resolution 7.07 in Fall 2014, which reads in part, "Resolved, That the Academic Senate for California Community Colleges work with the Chancellor's Office to align the definition of distance education in Title 5 §55204 with the federal definition of distance education stated in Title 34, Education §600.2." For the purposes of this paper, the terms "online education" and "distance education" shall be used somewhat interchangeably, with the acknowledgement that the ACCJC guidelines are more stringently enforced due to the requirement to see parity among all modalities of course offerings, including comparable support services.

This paper is divided into several major sections. The first portion of the paper is dedicated to effective practices for developing and offering online education at a college, including the roles of the local academic senate, curriculum committee, online or distance education committee, professional development committee, and other entities under shared governance or participatory decision-making structures which have a role to play in the creation and offering of online courses and programs. The

second part of the paper is a focus on the pedagogical elements that are necessary to create a successful online course, including regular and effective contact, course design, and accessibility, along with examples of effective practices to aid faculty who choose to create online courses. The final portion of the paper looks at the role that online courses can play in terms of diversity and equity, particularly in the importance of promoting equity and achievement in online courses as well as the diversification of offerings to reach students who might not be able to participate in a traditional in person course.

Finally, it is important to note that this paper is a snapshot in time, and that there may be changes in regulation or in policies after its publication; therefore, it is essential that those engaged in online education, whether as practitioners, governance leaders, administrators, or others, remain vigilant about keeping informed of changes that may affect online education.

Effective Practices for Offering Online Courses

The Role of the Academic Senate and Other Governance Groups in Online Education

All academic and professional matters are under the purview of faculty through the legal authority granted to local academic senates in the Education Code and the California Code of Regulations, more commonly known as Title 5. Specifically, Education Code §70902(b)(7) gives local academic senates the right "to assume primary responsibility for making recommendations in the areas of curriculum and academic standards." Title 5 §53200 identifies the academic and professional matters under the purview of local academic senates, including areas that have a direct impact on all distance education programs, such as curriculum, educational program development, and policies for faculty professional development. Furthermore, Title 5 §55204 specifically identifies regular and effective contact in distance education courses as an academic and professional matter.

Title 5 §55202 establishes the determination of distance education course quality standards as a curricular matter[1] with the process for determining course quality standards requiring collegial consultation with local academic senates, by reference to §53200 and subsequent sections:

> The same standards of course quality shall be applied to any portion of a course conducted through distance education as are applied to traditional classroom courses, in regard to the course quality judgment made pursuant to the

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[1] With reference to Title 5 §55002

requirements of Section 55002, and in regard to any local course quality determination or review process. Determinations and judgments about the quality of distance education under the course quality standards shall be made with the full involvement of faculty in accordance with the provisions of subchapter 2 (commencing with Section 53200) of chapter 2.[2]

Thus, the determination of the pedagogical implications of a course's instructional modality is a matter of local academic senate purview and should be addressed through existing local processes established by collegial consultation with local academic senates.

Title 5 §55204 stipulates the requirement that governing boards ensure that there is "regular effective contact" (commonly referenced as "regular and effective contact") between instructors and students in distance education courses, and identifies regular and effective contact as an academic and professional matter. Local regular and effective contact policies must be established by governing boards through collegial consultation by relying primarily upon or reaching mutual agreement with their local academic senate.[3] Finally, because regular and effective contact policies are established through collegial consultation, if these are to be revised this must also be done through collegial consultation.

Title 5 §55206 requires that there be separate local approval for courses to be offered through distance education in order to ensure that the proposed distance education courses meet the same course quality standards as in-person courses, and that regular and effective contact is ensured. The process described in this section of Title 5 is a curricular review process that is established through collegial consultation with the local academic senate. This may be a process undertaken by the academic senate or another committee under the purview of the academic senate.

In addition to the academic senate, the local committees that often are the most important committees that are engaged with the college distance education program are the curriculum committee, distance education committee, and the professional development committee.

The Role of the Curriculum Committee

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[2] §55202

[3] Board policies vary in terms of "rely primarily" or "mutually agree" vis-à-vis the 10+1 under the purview of the academic senate; check local board policy to determine this for your local senate.

As stated previously, §55202 establishes the requirement for distance education and in-person courses to have the same quality standards, while §55206 establishes the requirement for separate review and approval for courses to be offered through distance education. These requirements apply to existing and new courses that are offered through distance education. Because §55202 specifically references Title 5 §55002, which establishes curriculum committees and the requirements for course quality standards, and §55206 requires the use of local course approval processes, the required separate review is a curriculum process which should be performed by the local curriculum committee and must be established through collegial consultation with the local academic senate.

While local processes vary, a common practice is the use of a distance education addendum to the course outline of record (COR) that describes how instruction for the course will be conducted in the distance education modality. The distance education addendum would then be reviewed through the local curriculum process to ensure that all course quality standards are met, including regular and effective contact. The curriculum committee should review and consider the course methods of instruction for ensuring that the course content is delivered to students with regular and effective contact, ensure that students may successfully complete the objectives and meet the learning outcomes described. The curriculum committee also needs to ensure elements of the course such as accessibility, authentication of student identity, and strategies for ensuring academic integrity is evident in the COR being reviewed. Once the local curriculum process is completed, the course can then be offered via distance education. The time required to complete the curriculum approval process for distance education courses should be consistent with that for approving in-person courses.

The Role of the Distance or Online Education Committee

It is recommended that, if colleges do not have a local committee in place, a distance education or online education committee be established to oversee the quality of the college distance education programs. While the curriculum committee is responsible for ensuring that course quality standards are met for all courses, including those offered through distance and online education, and that the methods delivering instruction through regular effective contact are described, the role of the distance or online education committee can be more or less specific. Most distance education committees are under the auspices of the local academic senate, although colleges may also have broader technology committees that can be college or district wide which might help support online education, but often have other functions as well. It is often the role of

the distance education committee to oversee the quality of the entire distance education program. This may include, but is not limited to, the following responsibilities:

- Development of recommendations and approval from appropriate faculty groups of instructional design standards for online courses;
- Review of course shells in the course management system (CMS) to ensure that they comply with the college's instructional design standards;
- Recommendations on the development of policies regarding the distance education program, including policies for the ongoing professional development for distance education instructors, policies regarding training in the use of the CMS, and policies for ensuring that all courses and materials are accessible to all people with disabilities;
- Development of the college distance education plan;
- Drafting of the college distance education handbook;
- Processes for peer review and professional development in the college distance education program to ensure its overall quality so that all accreditation requirements are being met and that students are being well-served.

Because the responsibilities of the distance or online education committee can include academic and professional matters, the committee should be under the auspices of the local academic senate, which would review and take action on its recommendations.

The membership of the distance education committee will vary from college to college. While there is no single correct structure, the composition should be primarily faculty. It is recommended that the local distance education committee membership include the distance education coordinator, curriculum chair, the primary distance education administrator, the professional development coordinator, a learning disabilities specialist, a counselor, information technology staff, faculty with distance education expertise from a broad scope of disciplines, and student representation. If the distance education committee is not established as an academic senate committee, it is important that all recommendations regarding academic and professional matters be considered by the local academic senate for review and action.

The Role of the Professional Development Committee

The professional development committee is responsible for developing the overall faculty professional development requirements for all faculty, regardless of the modality in which the faculty member teaches. This committee should work closely with the distance/online education committee to ensure that faculty professional development requirements include the requirements for professional development for

distance education instructors, including flex time requirements for colleges on flexible calendars, and that these recommendations are forwarded to the local academic senate for review and action. Depending on local process, the professional development committee may also work closely with a Distance Education Coordinator or other individuals to ensure that adequate and relevant professional development be provided in on-ground and online formats for faculty who teach online or hybrid sections.

Discussions can also occur in all committees about the evaluation of student learning styles and the need for tools to allow students to self-evaluate their ability to perform well in a course taught online. Discussions about potential pre- or co-requisites for students can also occur, particularly if faculty have concerns about the performance of students in certain disciplines or modalities (i.e., fully online versus hybrid). Again, these discussions would be under faculty purview and could happen in any number of committees.

Consultation with the Collective Bargaining Groups

Title 5 §55208 states that faculty selected to teach in distance education must meet the same minimum qualifications as faculty teaching in-person courses, and that the selection process will be the same for both in-person and online faculty. It further states that the determination of class sizes for distance education "shall be determined by and be consistent with other district procedures related to faculty assignment", and that this can be reviewed by the curriculum committee. Furthermore, Title 5 §55208(c) states that "nothing in this section shall be construed to impinge upon or detract from any negotiations or negotiated agreements between exclusive representatives and district governing boards." Many local collective bargaining agreements contain language about the rights and responsibilities of distance education instructors. These can include parameters for training and professional development, standards for the portability of meeting professional development requirements in multi-college districts, guidelines for instructor evaluation (including separate evaluation tools), requirements for assigning faculty to distance education classes, and class size restrictions.

While there are pedagogical and academic and professional matters implicit in the above areas, there are also clear working condition issues, and as such, it is crucial that the union be consulted when developing policies for distance education in order to ensure compliance with the local collective bargaining agreement.

Role of Student Support Services

It is important to recognize the essential role that student services play when addressing courses online. The Seymour-Campbell Student Success Act of 2012 requires matriculated services to improve access and provide comprehensive student services in order to foster student success. The goal of the Student Success and Support Program (SSSP) is to increase student access and success by providing students with core services, including orientation, assessment and placement, counseling and other educational planning services, and the support services necessary to assist students in achieving their educational goals. These services are not dependent upon the location in which the course is offered nor on the modality of instruction since these services must be provided to all students.

Authentication of Students

One of the greatest challenges facing faculty teaching courses online is ensuring that the person who is enrolled in the course is the person actually completing the assessments. Faculty should make every effort to confirm that the enrolled student is the student completing the work. While many colleges currently employ multiple methods to ensure student authentication for exams, including requiring proctored or in person exams with photo identification or other methods of authenticating the student, not all colleges have the capacity or technology to do so. Until that time, faculty can use multiple means of assessment and required weekly discussions or other assignments that enable the faculty member to become familiar with the student's writing style. Faculty can also consider encouraging students to use photograph avatars and to attend online office hours to allow the faculty member to become familiar with the students in the course. As the technology in online education continues to improve, so too will the tools that faculty have at their disposal to authenticate the identities of students enrolled in their courses.

Andragogy Instructional Challenges in Online Education

In the early years of distance education, faculty and others, including the ASCCC, argued that there was no difference between those classes taught online and those taught in person. It was argued that the only difference between those courses was the modality, and that everything else was identical. As faculty who teach online are aware, that may be true when it comes to rigor, but it is clear that there were actually major differences among the various modalities. One of the most significant was the

delineation between correspondence and distance education courses, as defined above. However, there are a number of other differences that exist between online courses and those taught in person. Some are defined in statute or in regulation; others exist in areas such as accessibility. While the use of online education has expanded over the past decade, policies and regulations at the state and federal levels have been slow to match the shifting use of technology. At the time of this writing in early 2018, there is a proposed reauthorization of the Higher Education Act, which—as currently written— could significantly alter federal regulation of distance education including policies governing the engagement of students via distance education, including repealing the language regarding distance education and encouraging competency based education.[4] This section will focus on the challenges that faculty teaching online courses face in order to ensure that their classes are compliant, as well as effective practices to assist faculty to teach their courses.

Regular and Effective Contact/Regular Substantive Interaction

As mentioned above, there are different terms used for what is commonly referred to as "regular and effective contact". Depending on the source, contact can be required to be "regular and effective", "regular and substantive", or some combination of these. The laws and regulations that establish the requirement for regular and effective or substantive contact are intended to ensure that students are receiving their share of instructor-initiated contact and instruction from programs that receive federal support via student financial aid. The ACCJC has more detailed evaluative criteria for distance education than the state or the federal criteria, including requirements around support services, which is based on the premise of ensuring parity between the traditional on-ground and distance learning modalities. It should be noted that the ACCJC language about distance education encompasses formats including interactive television as well as internet-based methods of delivering instruction.

One of the challenges that colleges face in ensuring compliance in online courses is that there is no clear definition of what regular and effective contact means. For example, in a February 2017 program review determination letter to one of the California community college campuses, the Department of Education summarized its January 2017 review of the college's Title IV-eligible programs. Although "no significant findings were identified" during the review, the Department of Education offered recommendations, specifying that the college should "stress the importance of regular and substantive interaction with students". "Faculty should provide feedback and guidance to students throughout the weekly online meetings and through multiple channels (e.g. engaging in forum discussions with students, commenting on written

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[4] Reauthorization of Higher Education Act, 2018: https://edworkforce.house.gov/prosper/

assignments, **and** graded quizzes. This is true even when students are required to attend in-person orientations, midterms, and finals. Feedback and guidance must be related to the academic content of the course (i.e. not limited to reminders about deadlines or other logistical matters) and must go beyond perfunctory comments such as 'good job' or 'great work.'"[5]

Examples of what would be considered regular and substantive interaction are available, but are limited. Types of interactions that might not be considered substantive (i.e., not limited to reminders about deadlines or other logistical matters) are also not clearly defined, and have the potential to cause confusion; if an announcement, for example, includes information about how to answer exam questions but also contains a reminder about the due date, would it be included in the definition of regular and substantive or not? According to the above, regular and substantive interactions are between the certificated faculty member of record and students, are faculty-initiated, are regular and predictable, are about the course's subject matter, and are qualitatively more than just a static assessment of student work.

In section § 55204, the California Education Code includes the language "regular effective contact" and specifies that "any portion of a course conducted through distance education includes regular effective contact between instructor and students, through group or individual meetings, orientation and review sessions, supplemental seminar or study sessions, field trips, library workshops, telephone contact, correspondence, voicemail, email, or other activities." It adds that regular and effective contact is the purview of faculty: "regular effective contact is an academic and professional matter." In addition, the ACCJC uses the federal terminology of "regular and substantive" and is clear that colleges should have policies that ensure the quality of distance education courses and programs. The ACCJC also requires that colleges ensure that their distance education students receive support comparable to in person students, and that the institution has effective practices and policies that support student success in distance education. ACCJC is in the process of "beta" testing a thought paper on peer evaluation of course taught online. Although this document has not been widely released as of this publication, it is expected that ACCJC will continue to refine processes for accreditation evaluation teams to use during their visits.

Given the importance of federal financial aid to the students at California community colleges, the role of accreditation and the increased scrutiny online courses are facing from the ACCJC, and the lack of a precise definition of what regular and effective

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[5]Letter to City College of San Francisco Regarding Program Review: https://www.cos.edu/About/Governance/AcademicSenate/DistanceEducation/Documents/Expedited%20Final%20Program%20Review%20Determination%20Letter%202.2.17_no%20appendices.pdf

contact entails in practice, it seems logical to combine the federal specifications with those offered by California Education Code and Title 5. An inclusive definition is to consider regular and effective contact as regular and predictable faculty-initiated interactions with students about the course content and about more than just boilerplate assessment of student work, and that this is an academic and professional matter under the purview of the academic senate.

So, given the limited amount of definition, how do faculty know what regular and effective contact is and whether or not there is enough of it in their classes? It is essential that any definitions or policies created at colleges around the question of regular and effective contact be made by faculty practitioners who are familiar with the federal, accreditation, and state requirements and who are able to accurately convey what is possible in an online course in terms of interaction with students, and that those definitions and requirements for regular and effective contact be included in the course's distance education addendum. For example, for many years, some course management systems (CMS) did not include the ability to thread discussion posts, so requiring students to post responses to classmates was technologically almost impossible.

The role of the academic senate in helping to create and shape these policies is paramount, especially on smaller campuses where information technology-related committees include academic and professional matters related to distance education because they lack a separate distance education committee. Colleges may define regular and effective contact in any manner than they choose, but it is imperative that the definitions meet the requirements spelled out above and that they contain elements of regular and effective contact that can be easily demonstrated in an evaluation of the course. In addition, whatever definition of regular and effective contact is agreed to at a college, this definition should be published in a easily accessible location, such as a board policy, administrative procedure, distance education handbook, or curriculum handbook, to provide an ACCJC evaluation team with a clear expectation of how the colleges applies the term. The definition should also be clearly spelled out in the distance education addendum for each course. When a team visits and team members access online courses sections, that definition will be central to the evaluation.   For samples of regular and effective contact policies that have been adopted by California community colleges, see Appendix B.

Laboratory Courses in Online Education

One area in online education that has come under increased scrutiny in recent years is the use of online labs. The advances in technology that have provided affordable mobile computing devices have also created pedagogical paradigms that are outdated. Years ago, when the costs of computers or intricate software were prohibitive for

individuals to have personal access, colleges purchased the equipment and/or software and provided direct access for students via activity laboratory classes where faculty directly supervised student work. Now, as students have their own direct access to computers, phones, and software, local labs or equipment and faculty supervision may appear to be less necessary, thus changing the curricular paradigm. State apportionment requires faculty supervision of student work, and as such all labs taught in the distance education modality, including online, must include faculty supervision and regular and effective contact. Faculty must be diligent in the curriculum development and review process to ensure that this occurs when all courses are approved for online education, but particularly for laboratory classes. While there are some fields where online labs are currently considered pedagogically unsound, particularly in the natural sciences, experimentation with online labs is occurring in many fields where that would have been once considered impossible, and as such it behooves faculty to remain familiar with the pedagogy around online instruction.

Course Design

Many colleges have well-established online programs, in some cases dating back two decades or more, and faculty who have taught online for many years may contend that they do not need to review their courses or their course designs. The recent transition of many colleges to the Canvas course management system provided an opportunity for some faculty to reevaluate their course designs, as have the numerous professional development opportunities around the state in online teaching and learning pedagogy. Because courses being offered online require a separate approval, it is important that the faculty who wish to teach these courses, even if they have been teaching them for years, are aware of the course requirements, including the need for regular and effective contact.

Once a course is approved for online instruction through the local approval processes, course materials may be developed and evaluated. It is important to note that the term evaluation in this section is not referencing the evaluation of the instructor. Rather, the evaluation described here is an evaluation of the instructional design of the course, and it can take many forms.

The first type of evaluation that usually takes place when an instructor wishes to teach an online class for the first time is the evaluation of the course design itself. These evaluations come in many different forms and with differing expectations and requirements. Some are peer evaluations of the course design conducted by members of a college's distance education committee or by faculty with considerable experience in online teaching and learning. Others are self-evaluations, allowing an online instructor a better idea of what should be developed for a successful online course. Still

others are a mix of the two—a guide to ensuring online success, often conducted with the assistance of an experienced peer. Some colleges require specific types of training, such as how to use Canvas, with the faculty members having elements of their course design evaluated by the faculty and staff conducting the training.

The ultimate purpose of these evaluations can vary significantly from one college to another. Depending upon a college's collective bargaining agreement regarding online teaching, a poor result on this evaluation can mean that the instructor in question is not allowed to teach the particular course in an online modality until the inadequate areas are improved and efficacy is demonstrated. In some cases, these evaluations may have no binding impact on whether or not an instructor can teach online; rather, they serve as a helpful review of course materials and class design. At other colleges, faculty may only teach online after they have completed an instructional design review course or other pedagogical and/or technical training, regardless of previous experience teaching online.

Ultimately, though, these evaluations should utilize rubrics that guide the evaluators through the various aspects of an online course that the faculty and college have determined to be crucial for a successful online education course and for regular and effective contact. Since some online teaching tools and methods are more effective when applied to different disciplines and content, evaluation standards and processes should be informed by the standards and methods outlined in the curriculum committee's process for approving a course to be offered online. There are many different course design rubrics, just as there are many different colleges using such rubrics. Some rubrics are more extensive and require detailed responses; others are briefer and highlight the most important aspects of online teaching. There is, in short, a wide disparity in the way course design rubrics have been developed and deployed in the past, depending on the needs of the audience for whom they were developed.

When the Online Education Initiative (OEI) was developed through the Chancellor's Office in 2013, it had several goals, including the creation of a course exchange, the determination of a system-wide course management system, and the development of a rubric that could be used universally, if desired. In addition to the creation of the exchange and the decision to purchase and promote the usage of the Canvas course management system, the OEI also created the OEI Course Design Rubric. The rubric was first released in 2014 and continues to be updated on a regular basis. The OEI website states that, "The Rubric is intended to establish standards relating to course design, interaction and collaboration, assessment, learner support, and accessibility in order to ensure the provision of a high-quality learning environment that promotes

student success and conforms to existing regulations."[6] In other words, the rubric is not just a tool for evaluating existing online course design; it can also serve as a guide for instructors developing new courses or wishing to improve their existing courses. While courses that are being taught in the OEI Exchange must use the rubric, it is voluntary for all other online courses, although some colleges have begun using parts of the rubric as their evaluative measurement for course design. ASCCC Resolution 9.01 (F15) encourages "local senates to establish rubrics for online course standards." The resolution stops short of encouraging colleges to adopt the OEI Rubric, but it does indicate that colleges should develop rubrics for online courses that, like the OEI's rubric, define regular and effective contact. It is important, then, for colleges and districts to have both a clear definition of regular and effective contact and to have a rubric in place to assess how and where that contact takes place during an online course.

In addition to regular and effective contact, courses should be reviewed for accessibility. Although the review can vary in scope and content from college to college, the review itself needs to be as thorough and as comprehensive as possible in order to ensure compliance. An individual knowledge about both accessibility and distance education can conduct the accessibility review or it may be conducted by a group (such a sub-committee of the distance education committee) which includes individuals skilled in either accessibility or distance education (or both). Ideally, the actual evaluation should be completed by someone with both accessibility and online teaching experience. More about accessibility compliance can be found in later in this paper.

Evaluation of Online Courses

There is a range of ways that online courses can be evaluated. Self-evaluations and student evaluations can be utilized to provide feedback about regular and effective contact, as well as other elements, in an online course. A self-evaluation can also be utilized to allow instructors a chance to clearly explain both their philosophy towards online education and the teaching practices utilized to bring this philosophy to life in their online classes. Instructor self-evaluations can be conducted on a regular basis in order to give the online educator a chance to reflect on the online teaching experience, to celebrate successes, and to identify areas of improvement. These evaluations can be part of the formal evaluation process or can be done by faculty seeking to improve the overall experience of their courses.

The student evaluation process can be used to give online students an opportunity to assess the positive and negative parts of their online experience. Many colleges actually

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[6] OEI Course Design Standards: http://ccconlineed.org/faculty-resources/professional-development/online-course-design-standards/

create modified versions of the traditional evaluation forms to include questions that focus specifically on aspects of the educational experience that are unique to online students who may never meet the instructor in person, including the elements of regular and effective contact. Colleges should take actions to ensure that these evaluations are conducted anonymously, as they are for in-person courses, to allow for the most honest feedback from the students in the course. The more times the evaluations are conducted, the better an instructor's understanding of what students find helpful and unhelpful in their online class experiences. As with the self-evaluations, these evaluations can be part of the formal evaluation process or can be done by individuals seeking to improve the overall experience for students in their online classes.

Instructor self-evaluations and student evaluations can help to improve the online education experience for both students and teachers. However, continuous evaluation does not need to stop here. It can also be greatly beneficial for online classes to be periodically evaluated by a peer to gauge an online course's effectiveness over time. Just because an online course is deemed to be effective when first developed does not mean that the course remains effective. Periodically allowing peers to review and evaluate an online course gives additional feedback to the online instructor; it also helps to reaffirm that regular and effective contact is evident in the course. These types of continuous evaluations can be a repeat of the initial course design evaluation; the same forms and processes could be used periodically. Alternately, these ongoing reviews can focus only on the most important aspects of online student success such as regular and effective contact. The key, again, is the consistency of the administration of evaluations. Since local processes vary, it is essential to ensure that the collective bargaining agreement is honored while these evaluations take place.

Another type of evaluation that can and should be conducted is a regular review of the college's distance education program as a whole. Most colleges and districts have numerous mechanisms in place to effectively evaluate the health of a program: the program review cycle, accreditation, committee evaluation, and so on. Hopefully, every college's distance education program is subject to the same kind of regular review as all other programs on campus. Given the recent focus on online courses and programs during ACCJC visits, consistent demonstration of ongoing improvement and evaluation/assessment is essential.

Finally, colleges and districts should seek to ensure the continued health and the continuous growth of distance education programs by developing and regularly revising a college and/or district master plan for distance education. There might be multiple master plans -- a district overarching technology plan, for example, along with college technology and distance education plans – but these should all be developed

with faculty involvement and leadership and regularly revised. Finally, the college's distance education committee should regularly review its own performance, identifying both successes and challenges and seeking out solutions to problems to ensure that the college's distance education offerings are the strongest and most successful they can be.

Professional Development

Professional development is critical to ensure that the instructor is properly trained in online course design, basic online technology, and online pedagogy. As mentioned above, for some colleges, this training is mandatory and must be completed before an instructor can teach an online class; for other colleges, the training is recommended but optional, or contains portions of the above elements but not all of them. This is a local decision and one which may have been determined by the local collective bargaining agreement, by the college's online committee, or through other means.

Even with the requirements or rules at a given college, it is very important for faculty that are new to online teaching to receive training before developing and teaching online course, perhaps beyond what the college requires or provides. It is also important for experienced instructors to receive continued training in order to stay current with the latest developments in online education and to better hone their own craft. At some colleges, this may be a contractual issue; at others, it may be a departmental requirement or a college expectation. Finally, it is useful for all faculty involved in online education to meet in workshops, institutes, or conferences in order to discuss and debate the latest issues in the field and be informed about changes to regulation or other areas around course construction.

Fortunately, there are many ways for faculty to receive training to teach online. For those who are considering the online teaching process, or who want to begin to design an online class, a first step could be to actually take an online class. It's important for faculty teaching online to understand the experience of what it is like to be an online student. There are many classes designed specifically to introduce faculty to the basic concepts behind teaching online and to take them through the process of developing online content. Colleges and/or districts have developed their own such courses or, in some cases, rely on existing courses conducted by organizations such as @ONE. Similarly, Canvas has self-paced courses that are available to any faculty interested in learning about online courses and pedagogy.

The online course experience is key for both beginning and experienced online teachers, but just taking a course is typically not enough to produce a quality online class. The next step is usually local training, either in the form of one-on-one tutoring with a distance education expert (such as an Instructional Media Designer), group workshops, or peer review sessions with a content expert.

Once instructors have developed courses and begun teaching online, continued training is beneficial. After all, there is no such thing as a perfect course; all faculty can benefit from continued education. This is particularly true for faculty teaching online, as online education changes rapidly, and it is important to keep up with the latest trends and tools. Luckily, there are many ways to receive this kind of professional development. Online, there are webinars that focus on key online issues and professional development. There are also conferences and workshops that take place on a regular basis throughout California. In addition, nearly every major ASCCC event includes breakouts on distance education or related issues. These breakouts are especially helpful because they provide a direct opportunity not only to hear from online education experts but also to network with others passionate about online education. Finally, those who aspire to be true online education masters might consider taking additional online courses to receive certification in online teaching. This certification allows faculty to train others, either at their own campus or elsewhere, and provide professional development to their peers.

Accessibility

Another critical aspect of online education is compliance with federal and state accessibility regulations. This section presents an overview of the federal and state accessibility laws and provides information that faculty need to know in order to be compliant with accessibility regulations in distance education.

"Accessible" means a person with a disability is afforded the opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a person without a disability in an equally effective and equally integrated manner, with equivalent ease of use. A person with a disability must be able to obtain the information as fully, equally, and independently as a person without a disability. Although providing this accommodation might not result in identical ease of use compared to that of persons without disabilities, it still must ensure equal opportunity to the education benefits and opportunities afforded by the technology and equal treatment in the use of such technology.[7]

To address the needs of individuals with disabilities, the federal government enacted the Rehabilitation Act of 1973 (Rehabilitation Act). The Rehabilitation Act states that "no otherwise qualified individual with a disability shall, solely by reason of his or her disability, be excluded from participating in, be denied the benefits of, or be subjected

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[7] United States Department of Education, Office of Civil Rights: https://www2.ed.gov/about/offices/list/ocr/504faq.html

to discrimination under any program or activity receiving federal assistance."[8] As recipients of federal funding, California's community colleges are subject to the provisions of the Rehabilitation Act and must be in compliance.[9]

In 1990 the federal government reinforced its commitment to individuals with disabilities by enacting the Americans with Disabilities Act (ADA). ADA provides individuals with disabilities civil rights protection and places emphasis on providing them with equal opportunity. Specific provisions of both the Rehabilitation Act and the ADA apply to programs and activities provided by public entities, including California's community colleges.[10]

 In 1998 Congress enacted Section 508 of the Rehabilitation Act, which requires federal agencies to make electronic and information technology accessible to individuals with disabilities. The law applies to federal agencies when they develop, procure, maintain, or use information technology. Under Section 508, agencies must provide individuals with disabilities access to and use of information and data that are comparable to the access to and use of the information and data available to others. In 2002 the California Legislature amended state law to make the requirements of Section 508 applicable to public entities in California. Because California's community colleges are public entities, they must comply with the provisions of the Rehabilitation Act, the ADA, and Section 508.

In conjunction with these laws, California Government Code §11135 requires that accessibility for persons with disabilities also be accommodated by a community college district using any source of state funds. Title 5 §55200 explicitly makes these requirements applicable to all distance education offerings, including online courses.

Despite, or perhaps because of the growth of online education, California community colleges have not met mandates from the federal and state government to provide accessibility in online education. A 2017 California State Auditor's Report focusing upon three community college districts' processes for replacing and upgrading information technology found that none of the colleges examined were currently monitoring their accessibility compliance performance.[11] The report also found that the

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[8] Ibid.

[9] Ibid.

[10] Ibid.

[11] California State Auditor Report on The Colleges Reviewed Are Not Adequately Monitoring Services for Technology Accessibility, and Districts and Colleges Should Formalize Procedures for Upgrading Technology: https://www.bsa.ca.gov/pdfs/reports/2017-102.pdf

colleges did not have specific processes in place to review whether instructional materials used are in compliance, nor had the California Community Colleges Chancellor's Office (CCCCO) provided these districts with guidelines on how to develop accessibility monitoring procedures. According to the report, this meant that some students were continuing to be denied access to equal education. The report concluded that community colleges must make accessibility a shared responsibility between faculty and their colleges. Suggestions for initiating this partnership include the development of online course content around the principles of Universal Design. An example of how to implement universal design course content and mandated accessibility can be found in the OEI rubric which focuses upon the development of inclusive course design and accessibility parameters.

Web Content Accessibility Guidelines

The accessibility portion of the OEI Course Design Rubric utilizes the Web Content Accessibility Guidelines (WCAG). WCAG provides definitions and requirements essential to making web content accessible. Several layers of guidance are offered, including overall principles and general guidelines. The guidelines have three conformance levels (A, AA, and AAA, from lowest to highest respectively) in which each checkpoint is either a level A, AA, or AAA, and were created around the following four foundations:

1. Perceivable
   • Provide text alternatives for non-text content.
   • Provide captions and other alternatives for multimedia.
   • Create content that can be presented in different ways, including by assistive technologies, without losing meaning, thus making it easier for users to see and hear content.

2. Operable
   • Make all functionality available from a keyboard.
   • Give users enough time to read and use content.
   • Do not use content that causes seizures.
   • Help users navigate and find content.

3. Understandable
   • Make text readable and understandable.
   • Make content appear and operate in predictable ways.
   • Users avoid and correct mistakes.

4. Robust
   • Maximize compatibility with current and future user tools.

Meeting accessibility guidelines can be a challenge, and faculty understandably have questions about how best to provide accessible content to their students. Some of the challenges were answered in-depth in the Distance Education Accessibility Guidelines (DEAG) (2011) report[12]. Such questions include but are not limited to the following questions:

- Do I really have to make my course accessible?
- I have a video I want to use in my distance education course that is not captioned, but I don't know of any deaf students currently enrolled in my course. Do I still have to caption the video?
- How much time will it take to make my course accessible?
- What if I teach a Math or Chemistry course? Is accessibility possible?
- If I have no disabled students in my course, do I still have to make it accessible?
- To whom do I go for help?
- Do I have to use alt tags for all my classes?

Answers to questions such as these are typically available to faculty through their distance education offices and/or faculty professional development programs. As the DEAG report made clear, colleges must provide faculty resources to work towards compliance with accessibility regulations. California community college faculty can, in addition to using the resources available at their campuses, access resources available through the High Tech Center (https://ccctechcenter.org/about/accessibility).

In order to ensure compliance with state and federal law, faculty should become familiar with the applicable State and Federal Accessibility Laws and the definition of accessibility. Colleges should provide faculty with resources on accessibility, and ensure that accessibility training for faculty, whether included in the technological/pedagogical training or separately, is part of the faculty resources provided for faculty teaching online. Although slightly dated, information from the CCCCO, which was last updated in 2012, can also be helpful in terms of what campuses

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[12]California Community Colleges Chancellor's Office Distance Education Accessibility Guidelines
http://extranet.cccco.edu/Portals/1/AA/DE/2011DistanceEducationAccessibilityGuidelines%20FINAL.pdf

need to provide.[13]   Ultimately, while the recent State Auditor's Report was only an examination of three districts, it made clear that districts may not be keeping up with the demands of the changing classroom setting, both in terms of accessibility to technology and in terms of the processes used to ensure compliance with accessibility regulations and statute. In order to ensure that students with disabilities have the greatest opportunities for success in online courses, it is imperative that faculty learn how to make their courses accessible and ensure that their colleges have the tools and resources to do so. While this might not be a direct faculty responsibility or fall directly under the 10+1, it should be something faculty and local academic senates are aware of and advocate for as needed.

Equity and Diversity in Online Courses

Another area that faculty should consider when teaching online is the area of equity and diversity. Equity and closing the equity gap are prominent and vital topics in higher education, including online education. In previous years, campus and statewide discussions have centered around equality, but while equality is focused on ensuring fair treatment and resources for everyone, equity is concerned with ensuring that students have the opportunity to reach the same outcomes across disparate populations. As such, the discussions which previously were about equality have moved into the challenge of providing equity across the diversity that exists in campuses, modalities, and courses.

Addressing the equity gap is crucial for the students, colleges, and society, and has long been a concern of the California community colleges and of the ASCCC. In 2011, the Student Success Taskforce (SSTF) convened by Chancellor Brice Harris, examined problems in equity, retention, and success, among others, and provided recommendations to the colleges through the Board of Governors' report published in 2012.[14] In an attempt to provide fiscal support for the closing of the equity gap, the California Legislature passed SB 1456, the Seymour-Campbell Student Success Act of 2012 (Lowenthal, 2012), designed to support the success of all students within the California community colleges. Other reports from the Chancellor's Office, including the report from the Taskforce on Workforce, Job Creation, and a Strong Economy and reports from the Equal Employment Opportunity Workgroup, also point to ways to improve student success, although online education is not as clearly delineated in those

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[13]Ibid.

[14]California Community College Chancellor's Office Student Success Initiative Report http://www.californiacommunitycolleges.cccco.edu/StudentSuccessInitiative/Reports.aspx

reports. [15]

Discussions around equity in online education exist in a variety of areas. There are the gaps that exist in the many areas, such as access to technology. While some of these may seem obvious – access to technology, familiarity with software programs or other tools needed for course success – others may be less so, including issues such as housing and food insecurity. For the purposes of this paper, the focus will be on areas of equity that can be addressed by faculty teaching online, in terms of effective practices that help bridge the equity gap to allow for success of all students in a course, in addition to reaching students who might not otherwise be able to enroll in a community college.

All faculty should be familiar with equity issues involving in person courses, and the challenges that underrepresented groups face in these courses. Students in online courses face these same challenges, in addition to others. Two large-scale studies examined outcomes for tens of thousands of students enrolled in thousands of courses at fifty-seven different community colleges in the states of Virginia and Washington State. Looking separately at different types of students, based on ethnicity, gender, age, and previous academic performance, as well as different academic subject areas, all subgroups tended to perform worse in online courses when compared to in-person classes. Some students—in particular, males, African American students, and students with lower levels of academic preparation—had much more difficulty in online courses than they did in in-person courses. These results are consistent with smaller-scale studies suggesting that the gap between online and in-person outcomes is wider among males, students with financial aid, those with lower prior grade point averages, and Hispanic students.[16] Researchers followed up with a qualitative study of twenty-three online courses in Virginia, including interviews with faculty and a sample of enrolled students. The students responded that they received less instructor guidance, support, and encouragement in their online courses, and that as a result, they did not learn the material as well. For highly motivated students who are familiar with the online environment, a relative lack of interpersonal connection and support may not be particularly problematic. However, low-income, ethnic minority, or first-generation students—that is, most community college students, who may not have familiarity with the online environment—are often anxious about their ability to succeed academically.

[15]California Community College Chancellor's Office Report – Doing What Matters
http://doingwhatmatters.cccco.edu/Portals/6/docs/SW/BOG_TaskForce_Report_v12_web.pdf
[16] S.S. Jaggers. "Democratization of Education for Whom? Online Learning and Educational Equity." Association of American Colleges & Universities.
http://www.aacu.org/diversitydemocracy/2014/winter/jaggars

This anxiety can manifest in counterproductive strategies such as procrastinating, not turning in assignments, or not reaching out to professors for help.[17] Ultimately, the study suggests that online courses may need to incorporate stronger interpersonal connections and instructor guidance than most currently do.

Interestingly, at least one study found that retention rates were lower for community college students taking exclusively online courses, but for students only taking a portion of their course load online, with the remainder of their load being in-person, retention rates did not decrease. These results, while found in national studies, remain consistent with the research results in California along with anecdotal information shared among colleagues that teach online in the CCC system.[18] While it is clear from research that equity concerns are not limited to California or even the United States, the focus of this section of the paper will remain on the California community colleges.

In California, analysis by the California Community Colleges Chancellor's Office (CCCCO) found that the rate of students taking online courses has increased dramatically in the past two decades. In 2005-6, approximately 12.5% of the enrollment in community colleges was in online or other distance education courses. By 2011-12, that number had risen to nearly 27%. It should be noted that in 2011-12, 94% of distance education courses were taught via the internet, versus 6% that were taught using other distance education methods; these numbers do not include correspondence courses (including those taught for incarcerated students) and what might be higher in terms of online courses at this point.

While the number of students taking online courses increased significantly between 2005 and 2012, commensurate increases in retention and success did not occur. In its 2013[19] *Distance Education Report*, the CCCCO reported "The seven-year averages of traditional retention and success rates are 84.5 percent and 66.4 percent respectively.

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[17] See Rebecca A. Cox, ""It Was Just That I Was Afraid": Promoting Success by Addressing Students' Fear of Failure" in *Community College Review 37*(1), 52-80.

[18] Of particular interest are Xu, D., & Jaggars, S. S. (2011). *Online and hybrid course enrollment and performance in Washington State community and technical colleges*. CCRC Working Paper No. 31. New York, NY: Community College Research Center, Columbia University. Retrieved from http://ccrc.tc.columbia.edu/media/k2/attachments/online-hybrid-performance-washington.pdf and Jaggars, S. S., & Bailey, T. (2010). *Effectiveness of fully online courses for college students: Response to a department of education meta-analysis.* New York, NY: Community College Research Center, Columbia University.

[19] At the time of the adoption of this paper, the 2013 Chancellor's Office *Distance Education Report* was the most recent publication from the CCCCO on distance and online education.

The seven-year average of distance education and retention and success rates are 77.4 percent and 55.9 percent, respectively."[20] The report also broke down success by ethnicity, with the highest success rates being held by Asian/Pacific Islanders at 66% and lowest being held by African American students at 44 percent.[21] The most recent seven-year study analysis has revealed an encouraging reduction in this gap from about 12% to 6% at the end of the 2015-2016 year as reported by the CCCCO at the 2017 annual Distance Education Coordinators retreat. [22]

There are a number of complexities with online education that do not rise to the same level in other modalities, and studies have shown wide variation in success rates in individual courses, suggesting there are multiple contributing factors. One of these issues is that effective practices for online education have not been broadly implemented statewide. Literature reviews on the topic of underrepresented students, particularly regarding the impact of online courses on low income and underprepared students, have shown that online courses have significantly higher mid-semester (or mid-quarter) withdraw rates than on-ground courses, especially with underprepared students. There is also evidence that suggests that students who take online courses and withdraw may be less likely to return in subsequent terms, and that of all demographics of students taking online courses, community college students may be the most impacted by the barriers of online education.[23] As such, it is essential that faculty work with their student support services, instructional designers, online administrators, and others to ensure that they are familiar with the most recent information regarding assisting students in bridging the equity gap.

Some of those barriers, mentioned above, may cut across all demographics. For example, as previously alluded to, access to technology continues to be an issue for many students. The assumption made is that because of the current state of technology in California, in particular, everyone is familiar with how to use various platforms, applications, and the like. For many years, the talk of the "digital divide" has been that faculty and students that are older (say, above 45) are not as well equipped to deal with the various kinds of technology that exist compared to their younger counterparts.

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[20]California Community Colleges Chancellor's Office Distance Education Report http://californiacommunitycolleges.cccco.edu/Portals/0/reportsTB/REPORT_DistanceEducation 2013_090313.pdf

[21] Ibid.

[22]Tech Ed Blog

[23] Xu, D., & Jaggars, S. S. (2011). *Online and hybrid course enrollment and performance in Washington State community and technical colleges*. CCRC Working Paper No. 31. New York, NY: Community College Research Center, Columbia University. Retrieved from http://ccrc.tc.columbia.edu/media/k2/attachments/online-hybrid-performance-washington.pdf

Increasingly, that is being disproven, in that many students appear to struggle with elements of technology to which they have not been introduced, such as word-processing programs, using a course management system, or having access to the equipment necessary to do their coursework. While most students possess a smartphone, this is probably not the most efficient way to write a paper or to submit an examination for an online course. And because colleges have been forced to scale back economically, equipment on campuses might not be up-to-date or even available for student usage, again based on the assumption that every student has access to technology of his or her own. As the founder of Udacity, Sebastian Thrun, stated after the results of a partnership between San Jose State University and Udacity did not produce the hoped-for results, "the disadvantaged students targeted by the pilot proved a mismatch for online education. It's a group for which this medium is not a good fit," he said."[24] It's also clear that the "digital divide" is more than an age issue. A Federal study found that "78 percent of Whites nationally used the Internet in 2015, compared to 68 percent of African Americans and 66 percent of Hispanics. In rural areas, 70 percent of White Americans had adopted the Internet, compared to 59 percent of African Americans and 61 percent of Hispanics."[25]

The Chancellor's Office's 2013 report also indicates that for a student who is "not particularly well prepared for college-level work and not an especially motivated beginning student, online courses early in the college experience may not be advised."[26] This can be particularly damaging to students who are unfamiliar with college protocols, especially in the community colleges, where students are only allowed to take courses a certain number of times without penalty. It is also clear that online instruction may not always be the best choice for students who are in need of remediation, especially if there are only limited support services available. Another equity concern is class size, and the impact the number of students in a class has on pedagogy and on the students taking the courses. In in-person classes, there are obvious constraints that preclude a class becoming too large, including the size of the room or the lab, and the amount of equipment available. Such barriers do not exist in online classes. While it might seem that increasing the seat count in an online class

[24] Straumsheim, Carl (December 18, 2013) Scaling Back in San Jose. Inside Higher Ed https://www.insidehighered.com/news/2013/12/18/san-jose-state-u-resurrects-scaled-back-online-course-experiment-mooc-provider

[25] Carlson, Edward and Goss, Justin (August 10, 2016) *The State of the Urban Rural Digital Divide.* Department of Commerce https://www.commerce.gov/news/blog/2016/08/state-urbanrural-digital-divide

[26] Ibid.

would only be an issue for the faculty member, it is an issue for the students as well. Teaching online requires a great deal of work; contrary to the belief of many, teaching online does not entail setting up a course site and letting it run itself. Responding to students, designing new assessments each quarter, and reaching out to students who are not succeeding is no different in an online class than it is in a in person course. However, if it is decided that the seat count for an online class will be double that of an in-person class, as some colleges have different seat counts for online versus in-person courses, that means that the faculty member teaching online has less time to be able to connect with the students in the course. It also makes interaction between the students in the course more difficult. The widespread interest in Massive Open Online Courses (MOOCs) in 2013 and 2014 convinced some in higher education and in the legislature that this would be the solution to all of the problems in higher education – just create a course for thousands to take at a time, and all issues would be solved.

Other forms of diversity exist in online courses as well. Many students taking online courses are traditional students who need an additional course that did not fit into an in-person schedule, but others are working adults, military personnel, those unable to leave their homes for medical and other reasons, family members caring for an elder or a special needs child, and a host of others. These students, and their needs, should also be taken into account when a faculty member is designing and teaching an online course.

Faculty can take steps to ensure that equity is present in their online courses. Requiring that students must use a particular type of software is fine, provided that it is easily or reasonably available to students; if a faculty member requires that all students must use a particular word processing program, and does not allow for any substitutions or other alternatives (unless there is a good reason), it may exclude students from succeeding if that program is only available for purchase rather than available at no cost. Flexibility in times that assignments are due may also assist students; if assignments open at 9pm and are due the following morning at 9am, students who must use public computers (at a local library for example) may not be able to complete their work. Working students may be better served with assessments that are due on a weekend day rather than during the week, while military personnel may have limited times that they are available to use a computer or other device. Ensuring the same kind of accessibility to materials such as putting books on reserve at the library for online courses as faculty would do for in-person classes is also helpful, particularly for students who might not be able to afford a textbook if a faculty member is using a non-Open Educational Resource (OER). And finally, the use of OER materials, which are free or of low cost to students, is another way to aid students who might not be able to afford textbooks or might not be able to use a physical text, as most OER materials are available digitally.

Regardless of the course modality, faculty might also consider The Center for Urban Education at the University of Southern California's "Five Principles for Enacting Equity by Design":

- Clarity in language and goals
- Equity mindedness as the guiding paradigm
- Equitable practice and policies should accommodate differences in the context of students' learning
- Enacting equity requires a continual process of learning, disaggregating data, and questioning assumptions about relevance and effectiveness.
- Equity must be enacted as a pervasive institution- and system-wide principle.[27]

Equity and student services are often discussed together and with good reason, as one of the roles of student services is to provide institutional support to close the equity gap. Those student services can include a consistent advisor and/or counselor to work with students taking online courses, with varied availability to match when students would be online. As campuses are required to have support services that are equal to those offered to in person students, this should already be occurring.

The Chancellor's Office also reported on common retention strategies in its 2013 report, and while some of the recommendations may already be occurring on campuses, repeating them here might help spark new ideas and suggestions for online faculty and support services at campuses:

- Regular and effective contact between the faculty and student, the student and the faculty member, and between students, when possible, along with reminders and notifications from faculty when assignments or other assessments are due;
- Longitudinal data from the campus's institutional research office about retention and success rates in courses to see where there are gaps;
- Assessments of readiness for online courses, available through the OEI and other groups provided to the students before courses begin to allow them to see if they are prepared to take the course; and
- Clear delineation of the types of equipment, software, etc., needed for successful completion of the course, and links embedded in the course as to where to get those materials. If specific software is needed, it is recommended that the required software be available for use on campus or online for little to no cost to

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[27] The Center for Urban Education at the University of Southern California. A*merica's Unmet Promise: The Imperative for Equity in Higher Education*. Published January, 2015. https://www.aacu.org/publications/unmet-promise

the students, and that information should be provided to students prior to registration.

Conclusion

Ultimately, only faculty can accurately access the pedagogical soundness of offering a course online, the assessments given to measure student achievement in the course, and the course elements most likely to allow students to succeed. Given the rapidly changing landscape of online education, it is entirely possible that in the future, courses that might seem impossible to teach online will become commonplace in the online environment; it is clear, however, that those decisions need to be made by the faculty to ensure appropriate pedagogy, androgogy, and rigor, and to allow students their greatest chance of success.

Recommendations

1. Colleges should have established regular and effective contact policies for courses that are taught online, which should be widely available and included on the distance education addendum.
2. Colleges should have a distance or online education committee under the auspices of the academic senate for academic and professional matters within courses taught online. Responsibilities of this committee would include the development of recommendations and approval from appropriate faculty groups of instructional design standards for online courses and participation in the development of recommendations on policies regarding the distance education program, including policies for the ongoing professional development for distance education instructors, policies regarding training in the use of the course management system, and policies for ensuring that all courses and materials are accessible to all people with disabilities.
3. Colleges and districts should seek to ensure the continued health and the continuous growth of distance education programs by developing and regularly revising a college and/or district master plan for distance education.
4. Professional development around online education should be available to all faculty interested in teaching courses online, regardless of status as full or part time faculty. Ideally, faculty involved in online education should be given the opportunity to meet in workshops, institutes, or conferences in order to discuss and debate the latest issues in the field and be informed about changes to regulation or other areas around course construction.

5. Local senates, working with their collective bargaining units, should review evaluation tools to ensure that online courses can be properly evaluated, and that student evaluations in courses offered online can be conducted anonymously. The local bargaining unit should also be involved in discussions around policies for online courses to ensure compliance with the local collective bargaining agreement.
6. Online courses offerings should be regularly reviewed to ensure accessibility for all students, and colleges should provide the tools and resources to do so.
7. Faculty should work with their student support services, instructional designers, online administrators, and others to ensure familiarity with information regarding assisting students in bridging the equity gap in courses offered online.
8. The needs of all students should be taken into account when a faculty member is designing and teaching an online course.
9. Faculty teaching courses online should be cognizant of the digital divide and provide alternatives, when pedagogically sound, to recommended software and resources, including the use of Open Educational Resources (OER).

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Appendix #1

The following are Code of Federal Regulations, Title 5, and other statutory references that impact online education; please note that this is not an exhaustive list.

Code of Federal Regulations (34 C.F.R. §602.3)
https://www.law.cornell.edu/cfr/text/34/602.3

Section 508 of the Rehabilitation Act (Section 508):
https://www.fcc.gov/general/section-508-rehabilitation-act

United States Department of Education—Office of Civil Rights (OCR)
https://www2.ed.gov/about/offices/list/ocr/504faq.html

Rehabilitation Act of 1973 (Rehabilitation Act):
https://www.dol.gov/oasam/regs/statutes/sec504.htm

California Education Code §70902
https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=70902.&lawCode=EDC

California Code of Regulations Title 5 §53200
https://govt.westlaw.com/calregs/Document/I6EED7180D48411DEBC02831C6D6C108E?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default)&bhcp=1

California Code of Regulations Title 5 §55202
https://govt.westlaw.com/calregs/Document/ICE42A7E0D48411DEBC02831C6D6C108E?transitionType=Default&contextData=(sc.Default)

California Code of Regulations Title 5 §55204
https://govt.westlaw.com/calregs/Document/ICE9FE310D48411DEBC02831C6D6C108E?transitionType=Default&contextData=(sc.Default)

California Code of Regulations Title 5 §55206
https://govt.westlaw.com/calregs/Document/ID00A2170D48411DEBC02831C6D6C108E?transitionType=Default&contextData=(sc.Default)

California Code of Regulations Title 5 §55208
https://govt.westlaw.com/calregs/Document/ID16AE9F0D48411DEBC02831C6D6C108E?viewType=FullText&originationContext=documenttoc&transitionType=StatuteNavigator&contextData=(sc.Default)

Materials from the California Community Colleges Chancellor's Office, the Academic Senate for California Community Colleges, and other resources:

Academic Senate

ASCCC Online Education Committee

https://www.asccc.org/directory/online-education-committee

Creation of Local Online Education Rubrics, ASCCC Resolution Fall 2015 9.01, https://www.asccc.org/resolutions/creation-local-online-education-rubrics

California Community Colleges Chancellor's Office (CCCCO)

CCCCO Distance Education Accessibility Guidelines for Students with Disabilities http://extranet.cccco.edu/Portals/1/AA/DE/2011DistanceEducationAccessibilityGuidelines%20FINAL.pdf

CCCCO Distance Education Report (2013)

http://californiacommunitycolleges.cccco.edu/Portals/0/reportsTB/REPORT_DistanceEducation2013_090313.pdf

CCCCO Doing What Matters: Workforce, Job Creation and a Strong Economy Report and Recommendations (2015)

http://doingwhatmatters.cccco.edu/Portals/6/docs/SW/BOG_TaskForce_Report_v12_web.pdf

CCCCO Student Success Report (2012) http://www.californiacommunitycolleges.cccco.edu/StudentSuccessInitiative/Reports.aspx

OEI Course Design Rubric: http://ccconlineed.org/wp-content/uploads/2015/11/OEI_Rubric_Edited-ACC.pdf

OEI Online Course Design Standards: http://ccconlineed.org/faculty-resources/professional-development/online-course-design-standards/

Other Resources

Accessible Environments: Toward Universal Design by Mace et al: https://mn.gov/mnddc/parallels2/pdf/90s/90/90-AEN-CAH.pdf

Accrediting Commission of Community and Junior Colleges https://accjc.org/publications/

California Community Colleges: The Colleges Reviewed Are Not Adequately Monitoring Services for Technology Accessibility, and Districts and Colleges Should Formalize Procedures for Upgrading Technology Report 2017-102 https://www.bsa.ca.gov/pdfs/reports/2017-102.pdf

Community College Research Center Working Paper No. 31. New York, NY: Community College Research Center, Columbia University. Retrieved from http://ccrc.tc.columbia.edu/media/k2/attachments/online-hybrid-performance-washington.pdf

High Tech Center Training Unit Distance Education Accessibility Guidelines (2011): http://www.htctu.net/dlguidelines/2011%20Distance%20Education%20Accessibility%20Guidelines%20FINAL.pdf

Letter to City College of San Francisco Regarding Program Review https://www.cos.edu/About/Governance/AcademicSenate/DistanceEducation/Documents/Expedited%20Final%20Program%20Review%20Determination%20Letter%202.2.17_no%20appendices.pdf

Reauthorization of the Higher Education Act: https://edworkforce.house.gov/prosper/

United States Department of Education, Office of Civil Rights: https://www2.ed.gov/about/offices/list/ocr/504faq.html

Web Content Accessibility Guidelines 2.0 https://www.w3.org/TR/WCAG20/

Appendix #2

Distance Education Course Evaluation Forms/Addenda

American River College DE Course Checklist
http://bit.ly/DE-checklist

Foothill College Distance Education Addendum

https://foothill.edu/curriculum/forms.html

Imperial Valley College DE Course Evaluation Form
https://www.imperial.edu/ivc/files/distance_ed/DE_Course_Evaluation_Form.pdf

Mt San Antonio College "Classroom Visitation Evaluation of Distance Learning Faculty" http://connection.mtsac.edu/forms/hr/fa-forms/H4C.docx

Mt San Antonio College Distance Learning Amendment Form
http://www.mtsac.edu/dlc/forms/DL-Amendment-Form.docx