

# DEVELOPING AND DESIGNING OPEN BORDER TEACHER EDUCATION PROGRAMS: CASE STUDIES IN ONLINE HIGHER EDUCATION

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## ABSTRACT

*Online classes in teacher education are becoming more common in higher education in the United States as universities realize that the same outcomes can be achieved without requiring preservice and in-service teachers to enter a physical classroom. This provides savings to both the student and university and fosters broader access to higher education and teacher education. In this series of case studies, we highlight both practical and innovative approaches as we analyze and discuss our experiences building and implementing online teacher education programs. We describe three new online programs on the west coast of the United States: a master's degree in teaching in California, a reading endorsement program in Oregon, and a credential program in special education in Washington State. We discuss the initial program outcomes and the lessons learned to help guide teacher educators, administrators, and researchers in institutes of higher education. We culminate with five general recommendations for those considering program change or creation.*

*Keywords: program development, asynchronous learning, hybrid, open border classrooms, borderless classrooms, international education, higher education, online education, teacher education*

## INTRODUCTION

Distance learning has a long and rich history. University coursework by paper correspondence has been documented as early as the 1800s (Kentor, 2015). As newer delivery technologies emerged, correspondence school would next move to both radio and television. With the advent of the World Wide Web in the late 1980s (McPherson, 2009) it was natural for distance learning to progress into an online delivery format in the 1990s. And as the Web matured, so too did our ability to

create increasingly sophisticated online learning programs. Modern day Learning Management Systems (LMSs) provide for a relatively easy method of entry into online course creation for any institute of higher learning. The LMS provides the course developer, usually the instructor, a simple to use interface in which to combine varied media formats, including video, audio, text, virtual discussions, and increasingly more interactive elements. Primary examples are the open source platforms of Moodle and Canvas, and the more

prevalent for-profit platform of Blackboard, (Hill, 2017).

As many as ten years ago Allen and Seaman (2007) reported that among the nation's largest research institutions, 99% offered at least one online course and more than half offered fully online programs. By 2013, it was estimated that as many as five million students were taking online courses in the United States alone (Norris, Broidnick, Lefrere, Gilmour, & Baer, 2013), and fully online programs continue to emerge (Crawford-Ferre & Wiest, 2012). The U.S. Department of Education (U.S. Department of Education, National Center for Education Statistics, 2016) reported that almost three million students were taking 100% online degrees in 2014, and among those about one third were engaged in graduate-level work.

The growth in online learning programs is nothing less than phenomenal, and there is ample evidence to suggest that either mode of delivery, online or face-to-face, is not a factor in student success or learning (Bowen, Chingos, Lack, & Nygren, 2014; National Research Council, 2007; Navarro & Shoemaker, 1999). When comparing online to field-based instruction for teachers, Vernon-Dotson, Floyd, Dukes, and Darling (2014) found that "no differences in . . . knowledge and skills were noted" (p. 41). University faculty and administration also recognize that by offering more content online, higher education institutions can both offer quality programs and increase rates of degree completion (Shea & Bidjerano, 2014).

The trend toward online teaching and learning is likely to continue. Some clear advantages may be driving the movement. First and foremost, online learning can be done asynchronously. That is to say, the student can access material on demand, and need not be present on a particular day or at a specific time. The flexibility to learn when desired is furthered by having the flexibility to choose where to learn, such as at home or while travelling, in rural areas where there is great need (Berry, Petrin, Gravelle, & Farmer, 2011; Naranjo, 2018), or in any country in the world. Location is irrelevant as long as a good Internet connection can be found. This flexibility in choosing time and location can also lessen any issues around busy family and work schedules. We call this combined flexibility an "open border classroom" because of the potential to remove physical, social, and political barriers. If

online and traditional courses were to have similar learning outcomes, it could be called a draw. However, considering that online courses offer ample open border advantages outside of learning, namely those of accessibility and convenience, higher education institutions are continuing to understand and leverage the online educational opportunities of this innovative program delivery mode.

## PURPOSE AND METHODOLOGY

In this descriptive study, we examine the development and structures of three different online programs in the field of teacher education: a master's degree in teaching in California, a reading endorsement program in Oregon, and a teacher credential program in inclusive special education in Washington State. While each program has unique content and focuses on different kinds of students, they are all similar in that they are relatively new and committed to developing online learning experiences for students.

Our purpose is straightforward. By way of program review and comparison we identify commonalities, both difficulties and successes, in the three new online teacher education programs. The results help inform the field, as institutes of higher education continue to move toward more online course delivery.

In line with the purpose of this study, we take a descriptive qualitative narrative approach, also known as storytelling (Banks, 1982). The two methods, descriptive narrative and storytelling, are often used interchangeably (Polkinghorne, 1988; Wiltshire, 1995). With a descriptive narrative or storytelling methodology the focus is on describing a beginning, middle, and end of the story (Riessman, 1993). Thus, each of the program developers describes their program structure, areas of success, and areas of difficulty, and emphasizes the progression of learning. The discussion then examines program similarities and differences and makes connections to innovative practice in online teacher education. This combined narrative addresses the need for online program descriptions in the teacher education literature and serves to inform similar efforts around the world as we move to a more globalized and online education infrastructure—i.e., one without borders. To be clear, this is not a story of course creation but instead

of online program creation and development, and as such is new in the literature.

Our approach to data analysis was to independently write narratives for the three programs. These narratives served as reports in the respective institutions. Next, using NVivo software (QSR International, 2012), we discovered what was common to each of our narratives. NVivo is a qualitative analytic tool that provides sophisticated and efficient querying tools based on textual data. The resulting emergent themes helped us to organize our common experiences and more clearly identify differences among programs. We organized each of the three case studies into three areas of focus: a) program structure and course design, b) experiences with the shift to online teaching and learning, and c) lessons learned from those experiences. Interestingly, these emergent themes aligned with similar work done previously (e.g., Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2009).

#### **CASE STUDY CALIFORNIA: MASTER OF ARTS IN TEACHING (MAT)**

The California university is a large urban institution with more than 35,000 undergraduate students. It is ranked in the top 75 public universities in the United States (U.S. News and World Report, 2016). Of note, this institution is ranked 7th in the nation for ethnic diversity and is a designated Hispanic-Serving Institution (HSI) by the U.S. Department of Education. The university has colleges that span all disciplines and is dedicated to working with the local community. The College of Education, offering mostly graduate degrees, is ranked No. 57 in the nation and 8th in California (U.S. News and World Report, 2016). It houses seven departments including the School of Teacher Education, in which the new online program resides.

##### *Program Structure and Course Design*

In the online MAT program, students are offered the opportunity to specialize in either elementary or secondary education, replacing a similar face-to-face program that had seen chronic low enrollment the three previous years. During the final year of the face-to-face program there were only six students; hardly sustainable for a public university. Concurrently, the University of Arizona, University of Phoenix, Grand Canyon

University, Kaplan University, among others, had all recently entered the market and were offering similar master's programs. As a traditional brick-and-mortar school, students were lost to more convenient online programs. And, while these programs were substantially more expensive, expert marketing and convenience were more popular than face-to-face programs for prospective students. So, born out of necessity and relative competition, a 100% online program was developed.

A typical master's degree in the field of education in California calls for 30 units of postbaccalaureate study, where a full semester course is three units. The California Board of Regents permits public universities to transfer in six units toward that 30 from a postbaccalaureate teacher training program, so students would be required to take 24 units of study, or eight courses, to obtain the master's degree. Considering the majority of incoming students are practicing teachers, courses were sequenced such that the heaviest load would occur over summer when they were on break from work. Therefore, four courses over summer semester, two in fall semester, and the final two in the final spring semester were offered and designed to be completed in ten months. Summer began with courses in (1) measurement, (2) diversity, (3) technology, (4) and advanced pedagogy, followed by fall with (5) inclusion and (6) technology and spring with (7) action research and (8) research literature. Five full-time faculty and five adjunct instructors teach courses. The focus of the program is inquiry-oriented teaching and learning, which is similar to other master's level programs (e.g., Bryant & Bates, 2015). In addition, an instructional designer devotes time to the development process, and a program advisor assists students when logistical support is needed. The course sequence leads students to a culminating thesis-like project in which they record a video presentation of their work to share with peers.

During a development year prior to program launch, with the advice of an instructional designer, faculty agreed to structure each course into discrete learning modules. Each course might have 15 modules over a 15-week period, and each module would contain content and assignments for that given week. Summer courses might have six to eight modules, as the time frame is compressed compared to fall and spring semesters. Within each

module, content is presented in order of student consumption. In essence, students work their way through each smaller learning task until the full module is completed. The consistency within and across courses was deliberately developed to provide easier access to learning material.

The program was developed over the course of one year before officially opening, and as of this writing has been in operation for three years. The third cohort of students is currently in their final semester. Each cohort is capped at 32–35 students, which is manageable. Adding more students would affect the quality of instructional feedback necessary to maintain a fully online program cohort.

### *Experiences with the Shift to Online Teaching and Learning*

As mentioned, an instructional designer led the year-long development process, and to varying degrees, full-time faculty participated in our university's "technology for teaching" training program, which consisted of regular meetings with the instructional designer focused on aligning course content and visual organization. The university supported LMS was Blackboard.

Faculty and staff used available technologies in different ways and to varying degrees. For example, about half of the classes used discussion boards to promote student interactions. About three quarters of the classes used recorded presentations, accompanied by transcripts to promote accessibility, to present content. Some used external video for support content learning, for example video from Youtube ([youtube.com](http://youtube.com)), Vimeo ([vimeo.com](http://vimeo.com)), and the Teaching Channel ([teachingchannel.org](http://teachingchannel.org)). About three quarters of the courses had a required textbook. All had weekly readings available as PDFs. One faculty member chose to have synchronous class meetings via the native Blackboard conferencing component.

As Blackboard integrates assignment submission with ongoing feedback, faculty and administration decided a turnaround of one week was appropriate for assignment feedback. Blackboard permitted direct tagging in parts of submitted assignments and by email. The benefit of using Blackboard was the easily traceable feedback trail that remained attached to online work submissions. Blackboard also recorded numerical scores in table format so students could

easily check on their progress. In terms of directly responding to email, the initial goal was a 24-hour turnaround.

### *Demand and Student Impact*

In the first year after program development, demand exploded. For the first time in almost ten years there were more applicants than available spaces. The program quickly filled to 100% capacity, a more than five-fold increase in filled seats. In addition, the program has a 100% graduation rate. Perhaps the students looking to online learning are especially well suited to succeeding in it, or perhaps the diligent planning and articulation of coursework provided scaffolds to promote success.

### *Lessons Learned*

Considering the nature of any new program, particularly a 100% online program, there were many mistakes. The primary obstacle, curiously, was the Department of Teacher Education. At the time of inception, about a third of the faculty thought online programs were neither rigorous nor worthwhile. While this may be considered a typical challenge, the amount and vehemence of pushback was unexpected. Thus, during the year-long development process the online program had to be "sold" to colleagues, and much time was spent at faculty meetings assuaging faculty doubts and fears. Interestingly, this new online program now ranks 21st nationally among online master's programs (U.S. News and World Report, 2017) and retains its 100% graduation rate. These rankings, coupled with positive student evaluations, have all but put to rest the idea that there could not be a quality online program. In the department, accreditation folios support the impact on PreK–12 students as at least comparable to the former face-to-face program.

Once the program was off the ground, communication frequency and quality with students emerged as an issue. Student feedback suggested that gaps in communication were likely caused by no regular face-to-face meetings, leaving students feeling abandoned. Though this is a typical affectual result for students new to online programs (Delaney, Johnson, Johnson, & Treslan, 2010; Tichavsky, Hunt, Driscoll, & Jicha, 2015), it was overlooked. Based on these results, energy was dedicated to improving feedback time and creating a single program email address for

general advising. Second-year results indicated improvement in these areas and discovering an interesting student workaround: Facebook. Student evaluations revealed that students had created a Facebook presence for the program to gather peer feedback on issues that might arise. While a similar option existed in each class with a general peer discussion board, the Facebook option spanned all classes. Subsequently, students have been encouraged to use Facebook or something similar. Some empirical studies (e.g., Hamid, Waycott, Kurnia, & Chang, 2015; Lee & Bonk, 2016) suggest that peer-to-peer time is valuable as it builds a social network, but we have come to realize there needs to be a somewhat organic movement to build this network and faculty have no place in it.

Another obstacle discovered after the first year of running the program was that students indicated classes were not connected to each other in any way. That is to say, the articulation so carefully planned during development was not apparent in execution. In response, we created a short video describing the program in its entirety. The video described the classes, why they were chosen, and how they were connected. For example, in semester one a class on educational measurement, a nuts and bolts statistics-type class, was connected to a second semester course on research-based pedagogy where required articles cited evidence based on the knowledge gained in the measurement class. Students then enrolled in action research and literature review classes that asked them to apply concepts and principles learned in previous courses as they conducted research in their classrooms. Making explicit connections between classes helps to ground students in the bigger picture and gave them a reason for learning the content we provided.

Four sources of data were used to evaluate the program:

1. we developed course evaluation surveys and asked the same ten questions about every class, from both a quantitative and qualitative approach. For example, we asked an open-ended question, “how can the class be improved?” and a Likert scale question, “how difficult was this class?”

2. we administered a similar but more broadly focused overall program survey after all classes are finished.

3. a technical advisor was tasked to consolidate and interpret Blackboard usage data from each

class. These data help to make clear what students are looking at and for how long and provide information on areas that might need improvement.

4. we considered student grades and completion rates. The goal is an overall program average of “B” or better and a better than 95% completion rate.

### **CASE STUDY OREGON: READING SPECIALIST ENDORSEMENT**

The Oregon university was founded in rural Oregon in the mid-1800s as a private liberal arts institution. It is a fully accredited university with more than 65 undergraduate fields of study and 16 graduate and professional programs. Colleges in the Arts & Sciences, Optometry, Education, Health Professions, and Business draw nearly 3,600 students per year. Graduate programs are available at each of the university’s four campuses in Oregon. The College of Education (COE) offers master’s programs that lead to both an initial teaching license and a specialization in advanced programs. Compared to Case Study California, this is a much smaller and more intimate campus setting.

#### *Program Structure and Course Design*

The Reading Specialist Endorsement Program is designed to prepare licensed teachers to become reading specialists to enhance teachers’ ability to support struggling readers and writers in multiple-subject and content-specific classrooms. The program’s content adheres to Oregon’s state teaching license authorization levels and standards. Teachers who hold an early childhood and/or elementary authorization level become qualified to provide reading specialist support at the early childhood and elementary level. Teachers who have middle school and secondary authorization levels tied to their content area become qualified to address the literacy needs of children in grades 6–12. At the time of this writing, Oregon changed licensing rules such that every endorsement area is PreK–12, thus departing from the early childhood, elementary, middle school, and high school authorization areas. To align with state licensing and teacher preparation statutes, the university’s College of Education revised the reading specialist endorsement program to include online components, thus accommodating student need and new state mandates.

At the onset of the program, alternate courses to support the wide range of needs for PreK–12

teachers were offered. The program was initially 16 semester credits, which included a 2-credit, 90-hour, state-required practicum at individual candidates' authorization levels. All reading specialist students took leadership courses, a literacy-in-the-content-areas course, a literacy assessment course, and a course to address the literacy and language needs of English learners. Additionally, those candidates who were authorized to teach at the early childhood and/or elementary levels focused on language and literacy development, while those authorized to teach at the middle and/or high school levels focused on adolescents as readers and writers.

Initially, there was a statewide push to ensure teachers were prepared to address the literacy and language needs of English learners in both multiple subjects and content specific subject areas. To assist teachers in meeting the growing population of English learners in their classes, the Language & Literacy Development and Adolescents as Readers & Writers courses were replaced with a linguistics class and the content of these two courses was spread to other courses. A 100% online Literacy & ELLs course for the program was also developed.

The Reading Specialist endorsement program is well balanced with both tenured and adjunct faculty. The adjunct faculty who teach courses in the program are current, practicing reading specialists or recently retired teachers or administrators. By engaging with a diverse group of course instructors, candidates experience multiple perspectives in how they can best support struggling readers and writers at all grade levels.

For many years, the reading specialist endorsement program ran as a face-to-face, campus-based program, with just one class fully online. However, over time and as a result of students' requests for out-of-town accommodations, faculty retirement, and decreased program enrollment, we were driven to provide online, hybrid, and face-to-face learning opportunities.

### *Experiences with the Shift to Online Teaching and Learning*

The primary need to provide more online courses came when candidates moved away from the local area midway through their programs or chose to complete their initial license student teaching opportunity abroad. Although many of the courses already used Moodle for assignment submissions or as a place to post articles and other class resources,

the course sites were not developed extensively enough to support learning outside of a classroom without access to hard copies of the textbooks and in-class engagement. Accommodating students who moved out of the area forced the transition to better support students online. However, the extent of the support was left to the instructor who was teaching the campus-based, face-to-face section. In other words, new online sections were not created for these candidates. Rather, online support became an accommodation within a traditional face-to-face course.

The secondary push toward online teaching and learning came with the retirement of the program's coordinator during a time of decreasing enrollment. As the program is small, there were few faculty to teach the campus-based, face-to-face classes. Without on-site faculty to lead the program, students needed to be accommodated 100% online. This opened the way to create a separate section for online teaching and learning. Individual technology and Moodle assistance were provided to faculty to develop their courses online. Fortunately, the faculty and adjunct instructors teaching these courses embraced the shift from face-to-face to online—so much so that some no longer teach their courses face-to-face but rather teach them 100% online or in a hybrid model with half the courses online and half face-to-face. Thus, the shift from face-to-face to online learning was not a conscious, deliberate series of planning and redesign, but rather it emerged naturally from addressing student and faculty needs.

### *Demand and Student Impact*

Typically, five or six candidates were enrolled in the face-to-face classes for the program. When the program shifted to online, candidates from both campuses joined the same classes, doubling single-class enrollment. Candidate participation has remained steady, and the cost of running the program has decreased. Rather than running multiple sections of the classes on two campuses, the students enroll in one online course.

The Oregon program is aligned with the state's licensing standards, the International Literacy Association's standards, and most recently the International Dyslexia Association's (IDA) standards. The Praxis Reading Specialist endorsement is the measurable outcome for students. To date, the program has a 100% passing

rate. Shifting to an online delivery mode from a face-to-face mode does not appear to have impacted our candidate success on the state's exam requirement.

As it is difficult to determine the impact on K–12 student learning from teachers who have completed the program, faculty and administration are continuing to follow up with graduates and local school districts with surveys, interviews, and extant data to gauge K–12 impact.

### *Lessons Learned*

An early emerging challenge when shifting from face-to-face to online learning was access to course textbooks and ways to capture the richness of in-class discussions and activities without simply creating discussion forums. Fortunately, much of the textbook and course content was easily substituted with articles, online accessible videos, links to external websites, and instructor-created lectures. Discussion forums are a means to attempt to recreate in-class conversation; however, without explicit guidelines and diligence from the course instructor, student responses to each other's posts may not reach the desired level of richness. Candidates may compose a reasonable-length response, but their responses to each other's posts are often weak and contrived. In an effort to remedy weak responses, instructors began to model expected responses. This effort unfortunately did not have the desired effect. In general, either candidates did not follow suit and continued with the brief "I agree," or they felt the instructor had the last word and did not respond. Explicit expectations (i.e., tied to a point value) of responding to each other's posts were discontinued. In a blended class, in which students alternate between online and face-to-face classes, students reported their appreciation to not have to respond to each other's posts. In short, the rich, spontaneous in-class discussions may not be re-creatable in an asynchronous online setting.

During the transition, many of the same candidates experienced both face-to-face and online course formats. Anecdotally, candidates who were verbose and participated heavily in class did not post long responses to course readings or videos, whereas those who were virtually silent or silenced in the face-to-face courses tended to write long, detailed responses. Additionally, students who were able to summarize or synthesize in a few sentences or were not strong writers were often required to

compose longer texts in the discussion forums. The longer text requirement may appeal to those who are versed at composing analytical or responsive text, but for those who are less so inclined may be unnecessarily penalized. As universities shift to online learning, this level of student participation in different formats and preferred learning modes needs to be evaluated.

In the end, the shift from face-to-face to online and hybrid classes changed not only the view of online platforms such as Moodle but also the way these platforms were used for instruction. Initially, Moodle was a way to reduce paper and manage resources. It was a repository for course materials and handouts and a way for students to submit assignments without handing in a printed copy. But now, use of Moodle has shifted to a place where candidates can read selected articles, view relevant videos, and connect with others across the state, country, or internationally. Although the reflective responses may lose the spontaneity of in-class dialogue and at times seem like an arduous task for the candidates and instructors alike, it is a space in which candidates can learn from each other, clear up misconceptions, share resources, and develop professional relationships.

### **CASE STUDY WASHINGTON STATE: INCLUSIVE SPECIAL EDUCATION ENDORSEMENT**

The Washington State university is comprised of five schools: Business, Interdisciplinary Arts and Sciences; Nursing and Health Studies; Science, Technology, Engineering and Mathematics; and Educational Studies. These schools offer more than 45 undergraduate and graduate degrees offered, but none of them are offered online and few are offered in a hybrid or blended modality.

The university prides itself in being attentive to first-generation college students and those from diverse background. During the 2015-2016 academic year, 48% of incoming first-year students indicated they were the first in their families to earn a four-year degree. Additionally, 64% of the first-year students identified as being of a diverse background. The branch campus where the program was developed is small, similar to Case Study Oregon, with a student population of about 5,000. It is a satellite to a much larger main campus, similar in size to Case Study California.

The School of Educational Studies is one of the

newest and fastest growing schools on the branch campus. In 2012, the school was charged with leading the formation of a special education teacher training program and initiating efforts to bridge teacher education in general and special education at both the graduate and undergraduate levels.

#### *Program Structure and Course Design*

Approximately 60% of K–12 students with disabilities spend 80% or more of their school day in the general curriculum (U.S. Department of Education, National Center for Education Statistics, 2015), meaning that general education teachers are tasked with providing special education accommodations and services in their classrooms as part of their daily work. However, few of these teachers have the formal training needed to maximize learning opportunities for students with disabilities in inclusive classroom settings (Allday, Neilsen-Gatti, & Hudson, 2013). Preparing teachers to better meet the academic and social-emotional learning needs of all students in inclusive classrooms serves as one of the key motivators for this program.

At the national, regional, state, and local levels there is a significant shortage of special education teachers (Boe, 2014). In Washington State, nearly every school district has demonstrated a need for special education teachers for the past 22 of 25 years (U.S. Department of Education, Office of Postsecondary Education, 2015). Increasingly, school districts in Washington State are seeking to hire, retain, and promote teachers who are certified in both general and special education due to their ability to create inclusive classrooms and schools. This project helps to meet the need for personnel in special education at the local and state levels by providing a route to dual certification.

Access to excellent higher education is another factor that motivated the development of this program (Bacow, Bowen, Guthrie, Lack, & Long, 2012). The use of instructional technologies has allowed the university to reduce the cost of a Master of Education degree that includes certification in special education from about \$32,000 to \$24,000. This represents a 26% tuition cost savings for graduate students, thereby creating the opportunity for access to a broader and potentially more diverse pool of teachers (Naranjo & Duesbery, 2016). Delivering the program online allows the university to reach teachers in their classrooms and in their

communities. The program enables teachers to utilize their own classrooms and communities as spaces for the application of knowledge and skills that are learned online.

The Inclusive Special Education (ISPED) teacher preparation program was purposefully designed to respond to teacher shortages in Washington State. This was done by creating a pathway to dual certification in special and general education using online teaching and learning. The primary goal of the ISPED program is to develop general education teacher's instructional knowledge and skills and cultivate ethical dispositions in the service of transformative practice in special education. In order to achieve this goal, the program was conceptualized and designed as a master's level certification focusing on continuing professional learning. According to Avalos (2011), the core of professional development is centered on the idea that "professional development is about teachers learning, learning how to learn, and transforming their knowledge into practice for the benefit of their students' growth" (p. 10).

The program is comprised of two principal components that, in tandem, support teacher's professional learning in special education: a) online learning and b) job-embedded learning. The program is comprised of seven graduate-level courses (26 credits) that are aligned both with Washington State and Council for Exceptional Children Initial Level special educator preparation standards. Of the seven courses five are delivered fully online with the remaining two courses (e.g., Summer Institute I and Summer Institute II) delivered face-to-face. The face-to-face courses are taught in partner school districts.

The ISPED program is designed to run from summer to summer on a quarter schedule. Students enroll in a face-to-face institute, or orientation, to learn about the sequence of courses and expectation during the first summer. In that same summer they begin with Foundations of Exceptionality & Special Education. Fall quarter they take Assessment in Special & Inclusive Education. In winter quarter they take Planning for Student Success in Inclusive Settings and Secondary Special Education & Transition. Spring quarter is Instruction in Inclusive Settings, and finally there is a culminating face-to-face class held over a weekend the following summer in which students compile a portfolio

evidencing major learning objectives.

### *Experiences with the Shift to Online Teaching and Learning*

Online coursework was designed so that teacher learning follows a developmental continuum. For example, curriculum is sequenced so that opportunities are afforded for knowledge-skill development early and accompanied by multiple and varied opportunities for practice culminating in initial mastery in applied settings. Although specific content is taught in each course, each course does not stand alone. Said differently, learning from course-to-course is purposefully integrated and reinforced across the curriculum.

The online learning component of the program is connected to job-embedded learning through assignments and activities that occur in online courses that require teachers to apply newly learned instructional practices in the schools where they work. For example, in their online coursework teachers learn how to assess student learning via special education practices and make planning and instructional decisions resulting from student learning data. Teachers then have assignments that require them to apply this learning in their schools with students and document and reflect on the outcomes.

Job-embedded learning is characterized by teacher learning that occurs locally, is included as part of daily practice, and is directed toward enhancing student learning (Croft Coggshall, Dolan, & Powers, 2010). Further, emphasis is placed on the connection between teachers' learning and the application of that learning in schools and classrooms (Croft et al., 2010). The project was designed to support teachers' job-embedded learning through a) the connection of online coursework to issues of actual practice and b) teacher engagement in and the documentation of learning experiences that are aligned with state and national competencies in special education via a digital competencies portfolio. The purpose of the competencies portfolio is for teachers to demonstrate their work with students with disabilities in applied settings.

### *Demand and Student Impact*

This program initially enrolled 11 candidates during its inception year. As noted, the curriculum from this program has been scaled to a newly

formed undergraduate level elementary teacher education program. In the following year the scaled-up undergraduate program enrolled 17 candidates in an elementary, dual-certification (general and inclusive special education) pathway. The growth from 11 to 17 candidates represented a 55% increase in enrollment. During the current academic year the program has grown to 30 candidates, demonstrating a 76% increase in enrollment over the previous academic year. Continued growth is expected. Robust growth of this program demonstrates that this it is productively responding to the demand for inclusive educators in Washington State through quality online and hybrid learning experiences.

The passing-rate for state certification examinations among program graduates has consistently been at or above 95%. This leads us to believe that our initial planning in combination with the online teaching and learning supports a high level of success on certification examinations.

Of note, local school districts have reached out to the university to deepen partnerships in teacher training and leverage the curricular approach taken by the ISPED program. For example, one district would like to develop a "home grown" inclusive teacher education pathway in partnership with the university that enables paraeducators to move into certified, dual-endorsed roles while working full time and engaging in online and hybrid learning.

### *Lessons Learned*

The ISPED program created change in the School of Educational Studies and at the branch campus in two important ways. First, this program established special education as a discipline within the school and created a pathway for teacher certification that had not previously existed. In addition, this program was built to create an interdisciplinary bridge between general and special education by focusing on inclusive practices in general education classrooms. The second notable achievement of the ISPED program was that it was the first online graduate program to operate at scale on the branch campus and led the way for other schools on the campus to initiate and scale-up online learning efforts.

Through the implementation of the online program much was learned from the students. Overall, the curricular format and online delivery met student's academic and career development needs. They were particularly pleased with the

curriculum because it was focused on the daily work of teaching in a job-embedded setting. Further, they appreciated the flexibility afforded by the online format of the program and the cost savings that was provided by the reduction in tuition.

Using a Learning Management System (LMS), in our case the open-source platform Canvas, to deliver the program and working with university contracted instructional designers posed limitations. The lack of technical knowledge and skill on the part of instructional designers at times made it difficult for students to access content in the LMS. Faculty were asked to deliver learning content to an instructional designer who was not adept at building seamless online learning experiences for students who were busy professionals. These challenges were eventually overcome, but they created significant barriers to teaching and learning when they occurred.

## DISCUSSION

All three of these programs were developed between 2014 and 2016 and continue to thrive and further develop. Our purpose in telling these stories was to share our experiences of the benefits and difficulties transitioning to online programs in teacher education. These programs, whether fully online or a combination of hybrid and online, give us insight into the development process. Case Study California, a large public institution, delivered a master's degree in teaching and was the only 100% online program presented here. Case Study Oregon, a small private liberal arts school, delivered a combination of face-to-face, hybrid, and fully online courses in a reading endorsement program. Case Study Washington State, a small satellite campus to a large public school, delivered more than 90% of its coursework online with bracketed summer weekend face-to-face retreats. While there were some unique experiences in each, there were more commonalities across the experiences of program developers.

We organize the discussion of the themes that emerged from our experiences in five areas: 1) program inception, 2) program development, 3) course and program articulation, 4) student communication and feedback, and 5) program flexibility. For each theme we provide a general recommendation for those wishing to begin or

refine their own online program development.

### *Program Inception*

In all three cases, program movement to an online environment was driven by external pressure to expand access and innovate practice. That is to say, no institution decided one day to create an online program; all were driven to make the change by student demand, stakeholder need, and institutional realities. In California, it was low enrollment and competition from newer, more versatile online for-profit programs. Even given much greater expense, students were moving away from face-to-face programs to these more convenient online programs. In Oregon, the driving force was in part state bureaucratic changes, which led to a need to reach out to rural locations and accommodate students who may be more distant than usual. And in Washington State, it was demand for an innovative program in special education. It should not be a surprise that in Oregon and Washington State, the imperative to increase access to a diverse student population in underserved areas was a driving factor. Both states have very low population density. This notion of a driving force behind the need for programs that serve local schools is not new (Berry et al., 2012; Naranjo, 2018). People are more spread out and harder to reach and demand is higher and not being met. In contrast, in Southern California there is a very high population density, likely the reason for the influx of the for-profit competitors. In all three cases, course creation was driven by stakeholder needs, whether they be the state legislature, local school and districts, faculty, or students themselves. And, in all cases, it was stakeholders who shaped the program design and development.

**Recommendation 1:** Understand the driving force behind program creation and take time to understand what your stakeholders need before you start to develop.

### *Program Development*

Program development experiences, those before program deployment, were varied. California had the benefit of a full year of planning with an expert instructional designer. The effects of her influence are still salient to this day, with coursework, no matter the instructor, having the same "look." For example, California pursued an organization structure of modules across all courses to provide

consistency. Even the graphical layout was similar across courses and varied only in terms of color. The instructional designer was not only adept in course development from a pedagogical standpoint, but she was also an expert in the LMS and could quickly provide a detailed support to instructors when needed. In Washington State, there was also a year-long development process with an instructional designer, but the experience was quite different. The instructional designer was not entirely supportive or skilled, and problems with course delivery were common and created confusion and frustration among students and faculty. In Oregon, there was no instructional designer support, so instructors were faced with the task of learning on their own, which they did with some effort and difficulty. On reflection, of course all would want a highly qualified instructional designer to provide support, but clearly that is not always possible, but this should be a priority for emerging programs when possible. Faculty should be ever mindful of technological constraints and appropriate staffing when endeavoring to implement new online teacher education programs and use widely accepted online teaching and learning standards such as Quality Matters (2014) to guide the designing and building of online courses and programs.

**Recommendation 2:** When possible, retain an instructional designer with expertise in online coursework to guide early development, create program consistency, and provide faculty with technical support.

#### *Course and Program Articulation*

Well-articulated coursework was important in all three case studies. With California and Washington State, a year of development allowed for careful planning to make connections within and between courses. In Oregon, the luxury of a planning year was not possible, as changes needed to be made immediately after state legislature decisions. In all three cases, a year into the programs more articulation work was still necessary. Washington State, in particular, made an effort to have bracketing summer retreats for students. Students expressed a high degree of satisfaction with this model because they had a chance to meet each other and it also provided orientation before and closure after the program. In our experiences, program articulation and continuity are ongoing needs.

**Recommendation 3:** Before, during, and after program development, continue to mindfully articulate subject matter with sequential and well aligned coursework.

#### *Student Communication and Feedback*

Faculty in each program recognized the importance of providing timely feedback in the context of a course in which faculty and students might never, or rarely, meet. An effort of Quality Matters (2014), the widely accepted Quality Online Learning and Teaching (QOLT) rubric (CSU, 2015), reports that it is advisable that “the instructor provides feedback in a timely fashion” (Objective 5.6). What constitutes timely is open to interpretation.

The fully online program in California began with a goal of 24-hour turnaround on email, but that soon proved to be nearly impossible. The communicated goal turned into a source of frustration for students as they increasingly began to expect on demand support for time sensitive issues, but faculty were unable to fulfill the 24-hour commitment. In subsequent semesters faculty better communicated that 24 hours was a goal, not a promise. Outside of formal communication, students developed their own social networks, which had both benefits and drawbacks. The nature of social networking gave rise to sometimes less-than-accurate information being communicated among students, while at the same time provided a beneficial social support role.

In addition, the QOLT rubric suggests that faculty seek feedback from students both during and after course delivery. All faculty found that being open and honest and seeking feedback during the course was immensely useful. Technical glitches were caught by students and their feedback to faculty meant repairs could be made quickly, often before other students encountered the problem. Feedback after each course and after the program also helped guide program changes in subsequent years. In one of our programs this meant changing both faculty and offered coursework.

The program in Oregon did not have explicitly stated goals or expectations for email response turnaround. However, responses during the time period of an online class were reported as typically being within 12 hours. Emails from students are most often seeking clarity on assignments. For class assignments, however, feedback was typically

one week to ten days. The quick turnaround on assignments may be because online classes are often compacted, and students are quickly on to subsequent assignments. Although it is not a policy, instructors also add to discussion forums by providing information to support the students' online posts, clearing up misconceptions, or validating student' responses. It should be noted, the level of interaction with students is instructor dependent rather than being program, department, or university policy.

At times, communication with the students did falter. For example, the program in Oregon had to improve its notices to students when classes start. Although the course might appear in their Moodle site when the instructor opens the course, students often needed more direction on getting started with the course. Miscommunication also arose when candidates and adjunct instructors did not use the university's internal email system or check their inbox frequently enough. Although instructors and students are expected to use the internal university email system, it takes time for students to get used to checking another email account or to set up an option to forward the email to a preferred account.

The 90% online program in Washington adopted a relational approach to crafting policy related to faculty availability for providing students with feedback and support. The program enrollment in the first year was intentionally kept small so that curriculum implementation and field components could be carefully monitored. The goal was that the student experience with both faculty and the curriculum was positive and engaging. At the outset, faculty meet face-to-face with students both in whole-group and 1:1 meetings. In the group setting, students and faculty agreed that although that this was an online program neither party was always available. Faculty and students agreed to make the best effort possible to return emails within 24 to 48 hours and, if need be, reach one another via phone or text.

In addition, students and faculty agreed to meet face-to-face six times throughout the program. These meetings are not deemed mandatory and occur regularly throughout the academic year. The purpose of these meetings is to foster faculty-student relationships and support student completion of major assignments in semiformal seminar settings. For those students and faculty

who cannot not attend meetings in person, video- and voice conferencing is used. In these sessions students get direct feedback from faculty and also learn from one another. These methods for providing student feedback proved to be effective in supported academic and professional development among students and faculty alike.

It is important to note that students played a key role in spotting technical issues with the online delivery of courses, much like with Case Study California. No matter the amount of planning and preparation, problems were still present. Students played a key role identifying user interface issues with courses. The ongoing feedback that was provided was used to make real-time changes and improvements throughout the course of the academic year.

Our recommendation for the crafting and implementation of feedback and student support policy is to invest in and develop relationships of mutual trust and respect with students and to be proactive with communication. Building and implementing online courses and programs is a relatively easy technical task. What makes a program excellent is the extent to which students are meaningfully engaged with their faculty, the content, and one another.

**Recommendation 4:** In terms of courses and overall program development, listen to students, respond to their needs, and develop relationships. In terms of short term assignment feedback, let students know you will try to respond quickly but admit that it is not always possible.

#### *Program Flexibility*

We began this story with the idea that flexibility in choosing time and location can reduce conflicts between school and busy family and work schedules. We called this combined flexibility an Open Border Classroom because of the potential to remove physical, social, and political barriers—and increase the diversity of our student population.

In terms of the diversity of our student populations, in California, students are more than 50% Latino, which roughly mirrors the local population. Interestingly, recent cohorts also include students from out of state and out of country. In Oregon and Washington State, where one driving force was to recruit students from rural locations, success was realized primarily because recruiting efforts targeted rural areas.

The Open Border Classroom also provides freedom of time. In all three programs this was furthered by altering traditional class scheduling. All programs used summer sessions to expedite degree completion. We believe this is a key element to the success of our programs. Not only could students do coursework in their pajamas in the South Pacific, for the most part they could also do it when they wanted.

Developing online courses means having the entire course mapped out and available on the first day. This means students could accelerate their consumption of course material to better fit their schedules. Students could finish with course material as quickly as they wanted, although they may have needed to wait for feedback on assignments. This was of particular benefit to those with travel plans or family obligations, and those who experienced any emergencies. This kind of scheduling is comforting to students because they can see the finish line when they start the course and work as hard as they want to finish quickly if needed. This stands in contrast to most classroom experiences where the finish line is not seen and sometimes not fully understood. In essence, students could compact and accelerate the curriculum, within some bounds, as needed.

**Recommendation 5:** Focus on early program and course development to maximize the benefits of flexibility associated with Open Border Classrooms. Each course should be fully complete when it starts.

## CONCLUSIONS

Our programs will continue to grow and develop. Areas that seem rich for growth include increased video use as “cases” and other multimedia content. While all of our programs feature ample video, a more dynamic and interactive experience appears on the horizon. As with our curriculum development, technical support will be critical to make this happen. We will continue to develop our programs and monitor the efficacy of our efforts.

Given our focus on Open Border Classrooms, we will also inevitably face language and cultural obstacles. While we might currently be able to provide accommodations on an as-needed basis, clearly, we will need a more systemic approach to addressing future possibilities. We foresee integration with translation tools and

videoconferencing as strong possibilities to bridge gaps.

All five recommendations were realized independently but experienced in common. We feel confident that these findings will be applicable to new program development elsewhere, but we also recognize that differences in programs will provide unique challenges. In brief, the five recommendations are:

1. Take stock of stakeholders needs before you develop.
2. Retain an instructional designer.
3. Articulate subject matter with sequential coursework.
4. Listen closely to students and respond to their needs.
5. Embrace program flexibility.

All three programs continue to scale up to meet demand and remain competitive. Online programs in education are critically important and ultimately inevitable. The prospect of opening our programs to reach broader audiences is appealing to increase the diversity of our student population and provide increased accessibility and ultimately promote a more diverse workforce.

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