



Where Teacher Education and Online Programming Meet: Supporting Field Experiences in Online Initial Teacher Licensure Programs

Amidst an impending teacher shortage and renewed attention to preparing high quality teachers through a variety of pathways, schools of education today must respond to changes in the educational landscape and student preferences. One way that education schools increasingly adapt is through online programs, a modality which has shown tremendous growth over the past several years and which growing numbers of prospective education students prefer.

Yet relatively little is known about the effective integration of field experiences, commonly considered the most important component of teacher preparation, into online programs that lead to initial teacher licensure. Field experiences generally include practica, where candidates observe and in many cases, actively assist teachers in classrooms, and student teaching experiences, where candidates learn to lead a classroom. Field experiences enable prospective teachers to develop effective classroom practices and apply their prior learning about teaching.

Federal and state agencies recognize the value of online education both at the K-12 and higher education levels; already 44 states provide some type of funding for K-12 online education. Schools of education (SOEs) must now consider leveraging the online delivery modality to prepare educators. This research brief addresses the range of emerging practices at five institutions that provide online programming to prepare beginning teachers and seeks to spark dialogue at SOEs about what constitutes effective instruction for both online and face-to-face instruction and what the future of teacher education will look like.

Guiding Questions

- What is online teacher education programming? What are the technologies that these online teacher programs are utilizing to facilitate the clinical experience?
- What are good practices that can be applied to online teacher programs and more broadly, teacher education overall?

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Executive Summary

Ten years ago, preparing new teachers in online programs was unthinkable. Advances in technology and the increasing acceptance of alternative pathways to teaching and online education have led to the emergence of online initial teacher preparation. Our recent research study has uncovered a number of major entrants to the field in the past two years, including University of Southern California, Walden University, and Western Governors University, that indicate a growing market and the beginning of a new chapter in teacher preparation. This research brief provides descriptive case studies of five different online teacher education programs and identifies trends across the programs. Key findings are:

Contrary to common perceptions, face-to-face field experiences are still a vital component of online teacher preparation. Online programs leverage technologies to provide supplementary “online clinical experiences,” integrating the K-12 classroom into assignments with extensive video footage and some use of simulations.

- Candidates still spend hundreds of hours in classrooms in practicum and student teaching. In four of the five profiled institutions, these placements are coordinated by the university.
- In advance of and in conjunction with the practicum, online teaching candidates are frequently exposed to videos that highlight exemplary teaching practice in actual classrooms. Through watching clips of diverse teaching situations and classrooms multiple times, candidates are able to hone their observation skills and be better equipped for assignments and different situations they are expected to face in the classroom.
- Virtual simulations are emerging as another instructional tool where candidates are confronted with different learners and environments, and must face consequences to the decisions they make.

Different university supervision models are in place and range in their level of reliance on technology. Video-based observation is used by some universities, where candidates are assessed by university supervisors from a distance.

- In two of the profiled programs, the universities hire regional supervisors who undergo training and make site visits.
- In two of the other programs, videorecordings and videoconferencing serve as the primary way to review candidate practice. This approach can increase the number of observations, cut down on travel costs, and assist in deeper reflection and review of the footage together; however, a question is whether limitations to the modality hinder full feedback.
- Supervisors and cooperating teachers have access to trainings, online support forums, and forms online as part of efforts to ensure quality and provide support.

Given the newness of the profiled programs, there are lessons and practices that can be transferred to face-to-face programming. But, challenges remain in the online modality, including the potential overreliance on technology for training methods.

- There is a strong explicitness and thoughtfulness in the requirements for the featured program experiences, including classroom-based experiences (e.g., requiring principal observations, coordinating assignments with videos). Programs often prescribe structured course sequences that coordinate learning across courses, in individual courses, and even at the assignment level. This helps to ensure that learners have rigorous, consistent experiences. Candidates also receive high levels of support through active advising, personalized plans, and/or communities of mentors and fellow students.
- There is also a fear of overreliance on blunt usage of technologies, which often miss subtle social cues and can provide a barrier to intensive feedback.

Background

Growth of and demand for online programs is high, including in the education discipline. In 2007, 3.9 million students were enrolled in online courses, representing a 12.9% increase in enrollment from the prior year (Allen and Seaman, 2008) and an American Association for Colleges of Teacher Education (AACTE) and Eduventures report “Making the Data Matter” found that in 2006 over 71% of AACTE members offered at least one course online. Most recently, Eduventures (2009) has found that seven in ten prospective adult learners prefer their education discipline programming to be in a hybrid or 100% online format.

At the same time, online education faces some negative perceptions. Approximately one in three prospective adult education learners worry that the quality of online education is *inferior* to traditional, face-to-face education (Eduventures, 2009). Further, other barriers prevent the spread of teacher preparation programs in the online format, including the common belief that teacher education is a people-oriented profession where coursework should be largely conducted in person (see Figure 1 for common barriers).

What Eduventures Research Says about Online Education

- In a 2009 survey, four in ten prospective education students listed preferences for online universities
- In the same survey, 27.9% of prospective education students prefer hybrid coursework and 20.5% prefer totally online coursework
- Employers, especially in large, urban school districts, are demonstrating greater receptivity to online programs
- Among schools of education and the online education field on the whole, Eduventures has found that basic instructional tools are being utilized to deliver online programs and coursework.

Figure 1. Challenges and Opportunities of Online Initial Teacher Education Programming



- Concern over the quality of online instruction, especially a reliance on adjunct-heavy
- Belief that teaching is a people profession
- Impression that online education is a “cash cow”
- Limited use of innovative technology
- Developing and teaching online courses are time consuming processes and require different skill sets among faculty

- Student demand for online education is strong
- Student demand for alternative pathways to teaching is also strong
- Universities are viewing online learning as a modality of the future
- Federal policies and administration embrace online education
- Research has found modest advantages of online learning to traditional classroom learning

Evidence suggests that the online delivery modality can lead to meaningful learning when designed and executed carefully. *Evaluation of Evidence-Based Practices in Online Learning*, a 2009 meta-analysis conducted by SRI for the US Department of Education found that “online learning appears to offer a modest advantage over conventional classroom instruction” though the time on task, curriculum, and pedagogy also differed (Means, Toyama, Murphy, Bakia, and Jones). The best online programs display clear learning outcomes, varied use of media, strong student-faculty interaction, and ultimately, a strong social, cognitive, and teaching presence throughout the course. For education coursework, a particular advantage of the online modality is its fit with constructivist learning.

The expenses and logistics of arranging for an on-site practicum in an urban or rural classroom can be challenging for some universities and addressed through the online modality.

As research over the past few decades has demonstrated the importance of field experiences to initial teacher preparation, and teacher education has shifted toward more field-based training, there are ways for online teacher education programs to demonstrate their ability to integrate clinical experiences into the online delivery modality. Quality online programming can potentially help address challenges in delivering clinical experiences, which have been commonly identified as being fragmented, with inadequate time, superficial exposure, and overly traditional experiences (cited in Spooner, Flowers, Lambert, and Algozzine, 2008). Additionally, the expenses and logistics of arranging for an on-site practicum in an urban or rural classroom can be challenging for some universities and potentially addressed through the online modality.

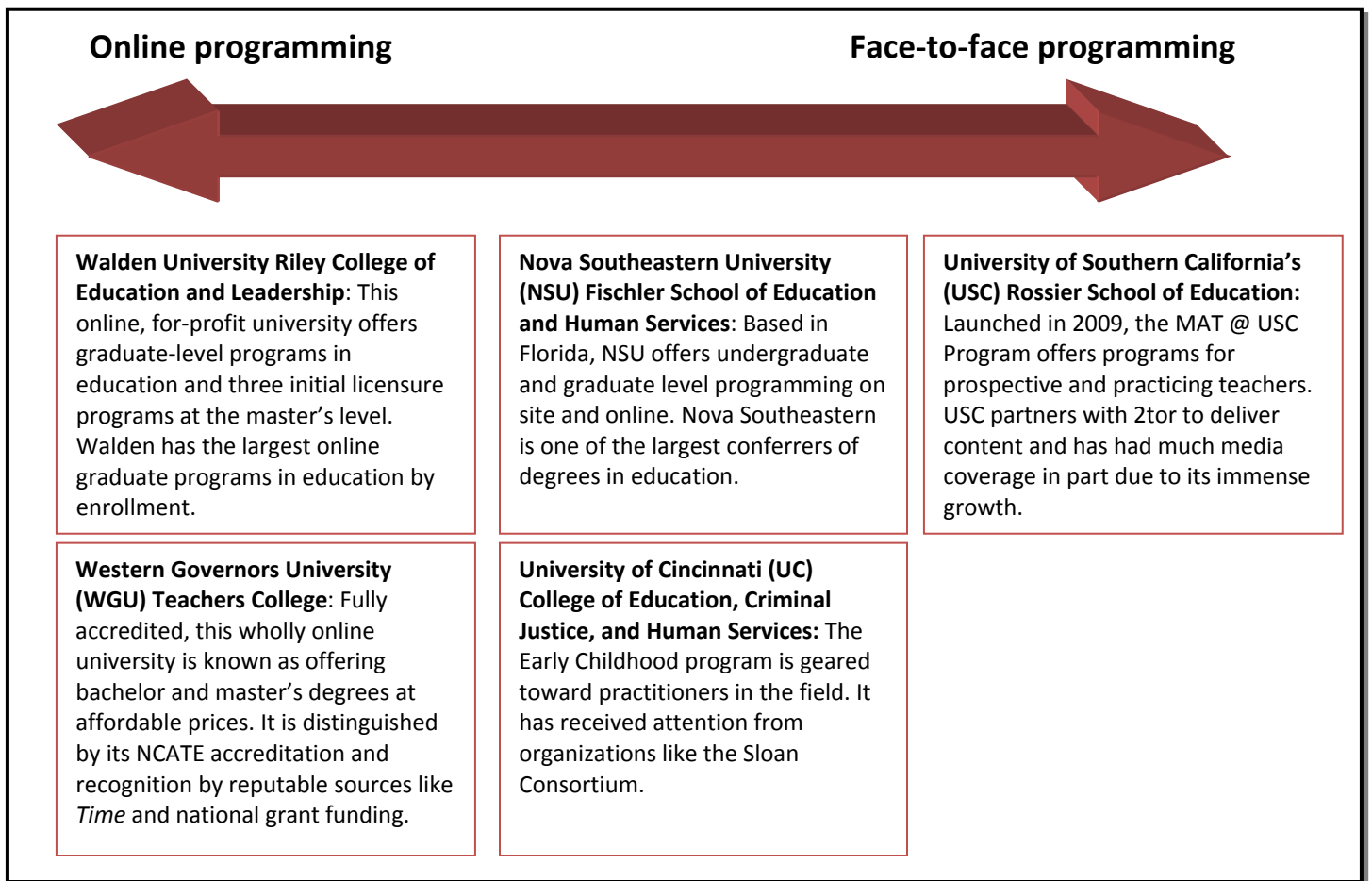
This brief aims to help describe what online teacher education is and what, if any, practices can be learned from the online delivery modality to other online and face-to-face teacher education programs. The questions it raises seek to promote dialogue and discussion of member schools of education.

Methodology

This research draws upon a literature review and on in-depth interviews that Eduventures conducted with deans, associate deans, and directors of field placement at five schools of education (see Figure 2). The featured institutions have demonstrated leadership in online learning and were believed to employ practices which are considered innovative and consistent with high quality practices. As such, individuals at these institutions were asked to describe technologies, instructional approaches, and field experience structures in place at these institutions that would help Eduventures identify commonalities, innovations, and potential areas for improvement in the field of online teacher education.

It is recognized that interviewees' perspectives and experiences influence their responses on institutional practices. While this investigation aims to be descriptive in nature, future research may take a closer look at institutional and outcomes data.

Figure 2. Names and Descriptions of Interviewed Institutions by Whether their Offerings are Predominantly Online or Face-to-Face



Findings Part I: Building an Understanding of Online Teacher Preparation Programs

The interviews revealed several findings about where the field is now and findings are presented in three primary areas:



What exactly online teacher education is, and what it is not

The featured programs offer emerging practices in online instruction, but also dispel notions that they *only* prepare teachers online.



The integration of video and advanced simulations to support teacher candidates' understanding of good practices in working with children in the classroom

Despite an overall lack of innovative technology usage in the online field, the featured teacher education programs integrate high levels of video and other technologies into programming



Emerging models of supervision, including in video and online settings

Institutions' supervision models vary in their reliance on technologies and local supervisors

A. Understanding What Exactly Online Teacher Education Is and What It Is Not

Foremost, online teacher education programs serve as an additional pathway for non-traditional audiences to enter the teaching profession.

Given the flexibility of taking coursework at times that are convenient for working adults, online teacher education programs reflect the typical audiences of online programs in general: students older than 22 years old who are enrolled in their part-time preparation program and employed full-time. Among the five interviewed teacher education programs, typical students are in their 30s and include career changers, stay-at-home parents, and military veterans. This distinction is important in understanding how online teacher education can play an important role in meeting teacher shortages and in particular high-need areas, in a time where accessibility to higher education and pathways to teaching are increasingly widening.

For many traditionalists in the field, however, the shift presents uncomfortable questions as to how online pathways can be as rigorous as face-to-face programming models yet look and feel so different. It touches upon a critical concern: how are online teacher education programs demonstrating that they are as high quality as other models? This research brief aims to demonstrate good and emerging best practices and also highlight common areas for continued growth.

Interviewed Institution	Student Profile
Nova Southeastern University	Candidates are largely enrolled in classes on a part-time basis and some are transfers from local community colleges.
University of Cincinnati	Most candidates are enrolled part-time while working full-time in education settings. Half of students in the Early Education Associates program come from Ohio.
University of Southern California	The average age of enrolled students in the MAT@USC program is 28. Many candidates are career changers and come from across the U.S.
Walden University	The majority of candidates are over 30 years of age. Candidates come from over 25 states and 150 districts across the U.S.
Western Governors University	The average candidate is 37 years old, and typical students include career changers, members of the military, and women returning to the workforce. Candidates come from all 50 states.

Like other teacher preparation formats, face-to-face clinical experiences still serve as the central learning experience of online initial teacher preparation.

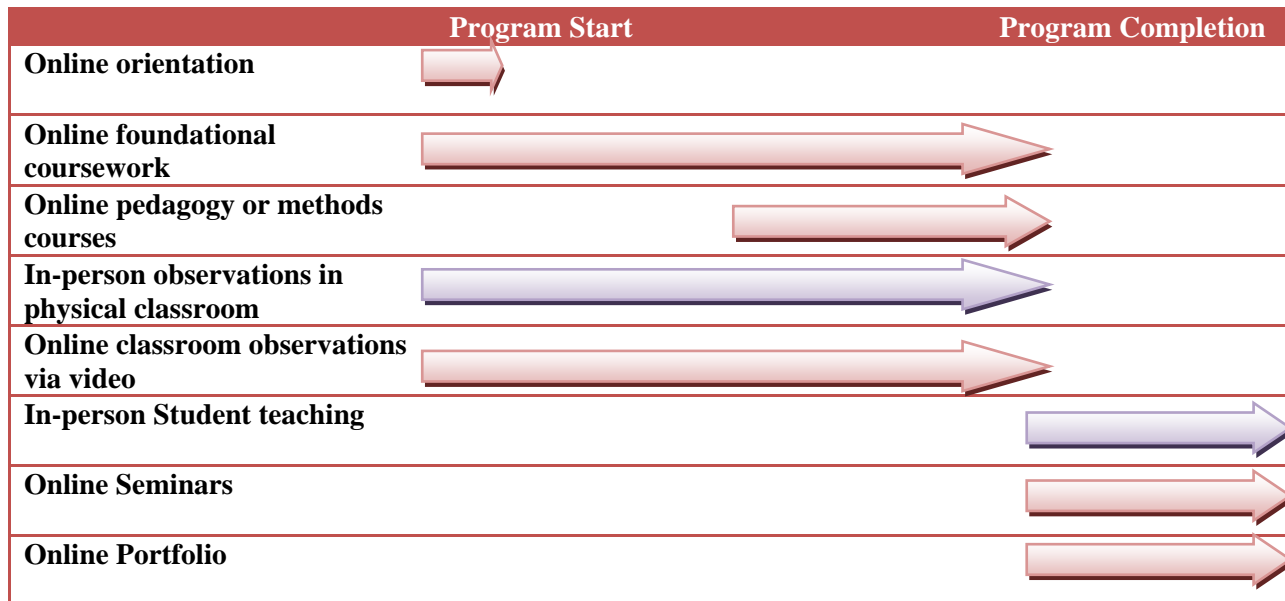
A common misperception is that online teacher education programs provide field experiences based solely on virtual worlds, avatars, and simulated situations; another concern is that while elements of the classroom can be recreated in an online format, they are fundamentally different from what the school and classroom is actually like. In clarification, most online teacher education programs, including the five profiled institutions, implement coursework components largely in an online setting. This includes foundational coursework. However, students still physically conduct observations and student teaching in local classrooms.

Online “clinical experiences,” such as computer-based simulations, video clips, and videoconferencing, are supplementary to candidates’ experiences in school-based experiences in face-to-face settings. Ultimately, online clinical experiences can support face-to-face clinical experiences in many formats from laboratory to student teaching experiences, with observations and intense discussions of videos of master teachers. They are not viewed as a replacement, but as a precursor to student teaching, preparing and reinforcing candidates’ classroom observations and practice.

“Sometimes people ask, ‘How can you prepare teachers online?’ ... Online coursework provides the knowledge base for the professional and pedagogical knowledge... Courses that require application in the field, when students are working in the classroom, and in a practicum that is *not* online serve as the *real* opportunities for application.”

– Richard Simms, Associate Dean at Walden University School of Education

Figure 3. Typical Progression of Online and Face-to-Face Components in Profiled Online Teacher Preparation Program Processes



Many of the principles of effective online instruction (and arguably supportive programming in general) apply to teacher education: for one, students should have intensive support to guide them throughout their program experience.

Because student retention is a major issue for online programs, where students may drop out if they are feeling isolated, overwhelmed with professional and home lives or frustrated at the pace of their part-time coursework, an essential feature of established online programs is strong student support services and dedicated student advisors. In contrast, past Eduventures SOE-LC alumni surveys have consistently identified advising as an area of lower satisfaction among face-to-face program graduates, with alumni reporting inconsistent levels of support. In worst case scenarios, students take extra classes or complain that their advisor did not even know their name. By necessity, online education has addressed persistent challenges of advising by tying it closely to their business model and professional operations.

ADVISING AT UC



EXAMPLE

At the University of Cincinnati, recruiters attract students to the program, and also usher them into the program experience once they are enrolled. Recruiters coordinate students' orientation to the Blackboard system and ensure they are accessing resources as needed. Students also have mandatory advising each quarter and with the same staff member throughout their program to discuss their progress. Essentially, the advisor is seen as an important motivator to getting "spirits back up again" whenever students are frustrated at their progress.

ADVISING AND STUDENT SUPPORT AT WGU



EXAMPLE

At Western Governor's University, the prospective teacher's mentor is described in the program guide as the "point person" who understands candidates' strengths, goals, and areas for improvement, and subsequently helps to develop the personalized Academic Action Plan (AAP) that candidates follow. The mentor "will help motivate" students "to work hard to complete" the program.

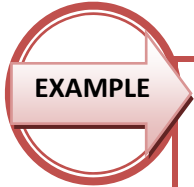
Advisors may also include experienced teachers or practitioners who are not only knowledgeable in the institution's approaches, but also in the field of teaching and who can serve as another knowledgeable guide to students' classroom practices. Candidates have access to different types of advisors at different stages in their program – such as content/pedagogy specialists and general academic advisors – along with different communities to participate in. In their WGU portal, candidates can participate in threaded discussions, read blogs, and chat with content experts and other colleagues in similar content areas and grade levels.

The profiled programs ensure that students receive personalized attention oftentimes through differentiated staffing models. Some online programs place students in small classes. The University of Cincinnati caps practicum courses at 7, with the purpose of ensuring that candidates have enough one-on-one attention and develop a strong relationship with fellow students and faculty members. Similarly, compared to its face-to-face teacher education program, USC is also planning on drastically smaller class sizes to enhance personal attention its MAT@USC practicum candidates receive.

So that all candidates receive high quality preparation, online programs place very explicit requirements on the program experience.

To ensure consistent quality, and in recognition that faculty may be located around the country or world, many large online programs have adopted systems-based approaches in which the entire program’s curriculum is developed by a team of faculty; as a result, consistency extends throughout classes and beyond individual faculty members. There is a detailed, specific program of study that students must follow. Further, at universities like Walden, the program experience is carefully conceptualized and coordinated such that each assignment corresponds with the online coursework, developed videos, and competency areas throughout the whole learning experience.

EXAMPLE PROGRAM OF STUDY AT WGU



Program of Study for Post-Baccalaureate Teacher Preparation Program in Math (5-9 or 5-12)

“WGU offers degrees, not classes. As a competency-based online university, progress through your degree program is determined by demonstrating your competence through carefully designed assessments and completion of a professional portfolio, capstone, or both. As a student in this program, you will complete the assessments (courses) listed below in order to graduate. These assessments are required, though you may be able to clear some of these requirements through a course-by-course transcript analysis. ([Learn more about transferring credits.](#)) Each assessment has a course of study, which contains a study guide and recommended learning resources for you to use while completing said assessment. Your assigned mentor will help guide you through this process. For ease of understanding, WGU has assigned competency units to each of its assessments as indicated below. A competency unit is equivalent to a semester credit hour of learning. WGU terms are six months in length. During a typical term, students will be expected to complete at least 8 to 9 competency units. Grades are assigned on a Pass/Fail basis; a “Pass” at WGU is equivalent to a letter grade of “B” or better.”

Standard Course of Study

Term 1	
EWOB Education Without Boundaries	1
FST5 Schools and Society	2
FHT5 Human Development and Learning	2
FDT5 Diversity and Inclusion	2
FCT5 Classroom Management	2
Term 2	
FTT5 Testing	2
FTC5 Foundations of Teaching Practice Integration	4
EIT5 Instructional Planning and Strategies	2
ETT5 Instructional Presentation and Follow-Up	4
Term 3	
EIO5 Instructional Planning, Strategies and Presentation Integration	2
MVT5 Specific Teaching Practices Part I: Mathematics Teaching Topics	2
MPT5 Specific Teaching Practices Part II: Mathematics History and Contrib.	2
MJT5 Specific Teaching Practices Part III: Mathematics Technology	2
MJC5 Specific Teaching Practices Part IV: Mathematics Pedagogy	2
Term 4	
DCS4 Cohort Seminar	3
STT1 Supervised Teaching Practicum, Obs 1 and 2	3
SUT1 Supervised Teaching Practicum, Obs 3 and Midterm	3
SVT1 Supervised Teaching Practicum, Obs 4 and 5	3
SWT1 Supervised Teaching Practicum, Obs 6 and Final	3
POP4 Professional Portfolio	6

Source: <http://www.wgu.edu/wgu/credit/program397>

B. The Online Environment Lends Itself to the Deep Integration of Video and Simulations to Support Clinical Field Experiences

Certainly, the use of online programming does not mean that technology applications should be used simply because they are available. However, the new wave of online teacher education programming moves the field forward by thoughtfully and deeply integrating advanced, creative technologies into instruction. Prior Eduventures research (2008, 2009) has revealed that the majority of online learning programs both in education and across disciplines use less immersive and more basic software applications, such as discussion boards, email, and links to other Web sites. In contrast, the featured programs heavily use more advanced applications like Skype, chat rooms, and Adobe Connect, where faculty, candidates, and cooperating teachers can videoconference and review video synchronously. These applications allow for interaction across the class to communicate, interact, and collaborate in different modalities. Notably, the USC@MAT program has a social-media platform which allows candidates to interact with one another in a Facebook-type setting, posting on classmates' walls. Advanced uses of technologies are not only in course instruction, but also clinical experiences.

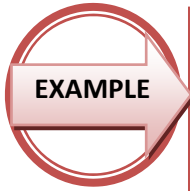
The new wave of online teacher education programming moves the field forward by thoughtfully and deeply integrating advanced, creative technologies into instruction.

Online teacher education programs strongly bring the P-12 classrooms into university preparation through extensive use of video clips of exemplary classroom practice; this serves as a way to provide candidates with consistent exposure to different classrooms and hone candidates' observation skills.

Just as face-to-face courses lend themselves to real-time discussions, lectures, and group activities, online courses lend themselves well to discussion boards, chat rooms, and the incorporation of video into pedagogy. While Eduventures' 2008 survey of schools of education found that video is not yet common among SOE providers (only 1 in 6 respondents reported that it is used *frequently* or *very frequently* in their online programs), among the profiled institutions, it is emerging as an integral tool that can increase awareness of different classroom situations and settings. This video can be high quality and allow students to review the footage at their own pace, view a diverse range of classrooms, and ensure that all candidates see master teachers handle different situations that they might not otherwise experience in their practica or student teaching classrooms. When applied systematically, learning can be substantial. Usage in the profiled programs appears to be frequent. One arguable point, however, is whether these video reviews can or should officially be counted as part of the clinical experience.

Role of Videos

- ✓ Provides content that candidates actively engage with; candidates are able to observe and discuss their reactions to
- ✓ Builds candidate awareness of different classroom environments and situations to prepare them for actual situations in classroom
- ✓ Provides access to classrooms that candidates might otherwise not be able to access due to geographic limitations
- ✓ Provides consistent access to best teaching practices to teaching candidates
- ✓ Develops candidate observation skills as videos can be re-watched and analyzed multiple times for different purposes



On its Web site, Walden defines the Virtual Field Experience™ as “an organized, purposeful, and thought-provoking experience that allows you to see best practices demonstrated on video by master teachers across the United States” and which allows exposure to “diverse students, teachers, teaching styles, and classroom settings.” This includes teachers in different fields – of reading, special education, and language arts among others—and grade levels from classrooms from across the nation.

Walden’s Associate Dean of Teacher Education reports that their videos are of very high quality; they are shot professionally and provide a holistic view of the classroom, demonstrating both the teacher’s actions and students’ reactions. After showing the classroom snippet, the featured teacher provides a review and reflection on the classroom lesson. There is a breadth of content covered in the videos, which are used across different programs, including outside the initial teacher preparation programs.

Walden offers 30 hours of virtual field experience which features a teacher in action. In each course, students are required to watch 3-5 hours of these videos. According to Dr. Jennifer Arndt, Director of the Office of Field Experience, a primary goal is that candidates “understand how to look at and review a classroom efficiently, correctly, and effectively.” It reinforces the same skills that they are expected to hone when in the practicum: “We very consciously said, let’s provide our candidates with the tools that they need to be a constructive observer and take that into their own practice... Their first semesters, it’s not just go in and observe, but here’s what we would like you to look at in practice.” Videos are tied to specific competency areas, such as classroom management where students may be expected to view a field experience, observe what the teacher does well and not so well, critique, and discuss the teacher’s actions. Then candidates go into their placement to apply the skills they’ve just developed to observe their cooperating teacher’s classroom management skills.

Some online programs leverage video technologies to make video-recordings of candidate teaching performance and practices a central component of the program supervision and observation structure.

According to the National Association of State Directors of Teacher Education and Certification (NASDTEC), as of 2006, 41 states require some aspect of electronic videorecording of candidate practice with the express purpose of providing feedback to teaching candidates. In online programs, such as University of Cincinnati and the University of Southern California, videorecording candidate instruction serves as *the primary* way for university supervisors to observe and provide feedback to candidates. Videorecording teaching candidates’

practice allows for candidates and supervisors to re-watch their practice multiple times individually and ultimately, lead to a deeper level of critical analysis and reflection. From a logistical standpoint, the university supervisor is able to overcome the scheduling and travel constraints by reviewing the content at their convenience.

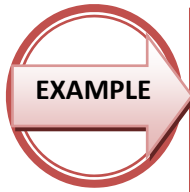
Figure 3. Sample Handheld Video Recorder MAT@USC Students Can Purchase



Source: MAT@USC Web site

However, a criticism is that taping the field experience might not capture the full extent of the classroom environment. As a result, in the University of Cincinnati and University of Southern California programs, supervisors conduct more observations than they would in the face-to-face program.

UC's VIDEO-ASSISTED SUPERVISION MODEL



At the University of Cincinnati, university supervisors solely observe candidates via videotape and provide feedback from a distance. In their practica and internship experiences, candidates are required to take 20 to 45 minutes of raw footage of themselves conducting particular types of activities and lessons in the classroom. Candidates in the associate's degree program complete three recordings per field experience, thereby completing a total of 9 videotapes.

Teaching candidates follow strict guidelines to videotape their instruction during certain classes and are not permitted to stop the tape or edit it. After videorecording, candidates write a reflection and upload the footage to the course Web site for their university supervisor to review. Candidates later collectively discuss the footage with the supervisor and cooperating teacher in a conference call. UC is also increasingly using Adobe Connect to integrate playback of the video recording in the actual meeting, allowing the reviewers to play and stop the recording to provide feedback.

Regardless of the university supervisor model (as discussed in the following section), videotaping can provide a powerful tool for candidates to closely examine their efficacy in the taped footage and reconcile what they see with what they perceive. As the academic director states:

“It’s very easy to discount when someone says, ‘Oh, I saw you ignoring this child or responding in this way’ and you think, ‘I didn’t do that. I pay attention to all kids.’ But you can’t discount the opinion of the observer [with videotape]; it can be an eye opening experience [to see] where you could’ve made a different choice. It becomes a more in-depth experience than having someone watch you throughout the day and the level of critical analysis when seeing it yourself...”

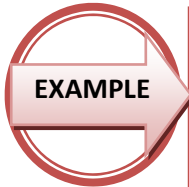
At UC, the program requires a higher number of field experience hours (400) than the state requires (300) and a higher number of videotape submissions than face-to-face observations.

As we move to Web 2.0 and user-generated content, there are opportunities for respondents to share their content. Videos can be uploaded to courses so that candidates collaboratively review and provide feedback to their peers as they analyze and reflect on strong instruction.

Experimentation with live video feeds into the P-12 classroom is being applied on a limited basis and has been met with moderate success.

Videoconferencing has allowed for teaching candidates and university supervisors to participate in the P-12 classroom in different capacities -- as observers, instructors, and assistants -- while communicating with one another. This allows for observation and interaction to occur in real time. While one of the interviewed institutions is trying out live video feeds into the K-12 classrooms, one example of a completed grant-funded experiment is described below.

PURDUE’S GRANT-FUNDED EXPERIMENT IN DISTANCE TEACHING AND SUPERVISION



In P3T3: Purdue Programme for Preparing Tomorrow’s Teachers, students were able to conduct their field experience in a diverse setting – an inner-city school in East Chicago – all from a distance. Pre-service teaching candidates learned how to use the video and audio technology that allowed them to observe and participate in classroom activities on eight occasions over the course of a semester. Initially, candidates visited the school for a full-day to meet students, teachers, and administrators; then, candidates visited the teacher’s class Web site on a regular basis to view lesson plans and observe the class. The culminating activities were individual or small group teaching through PowerPoint and similar types of mediums (Phillion, 2003). Candidates appreciated the opportunity to experience and observe other classrooms, including those with diverse students, and liked learning how to use the technology. However, the project experienced some technical glitches that made the process challenging for all involved and the distance between the televisions was noticeable to candidates.

In the final year of the project, faculty members were able to use the video technology to observe student teaching candidates, which was seen as much more cost effective in minimizing time and travel to school sites, especially if candidates’ placement sites were located far away.

Figure 4. Faculty Member Remotely Observing Teaching Candidate in P3T3 Program



Source: Purdue University

Some programs use simulations with varying degrees of technological sophistication.

Simulations are powerful tools in the situated learning contexts they provide – through pictures, video, details, and interrelated components – that relate to impacting student performance. Programs commonly provide candidates with case studies of realistic situations for students to think through. At institutions including Nova Southeastern, this can oftentimes be posed as a written paragraph or case along with a photograph that candidates are then expected to discuss in a seminar. There are also a few technology-based simulation applications that different teacher education programs use, which may employ a branching-type logic or more algorithm-based software that presents situations based on different student profiles. Simulations can build in several classroom components such as grade books and seating arrangements.

“We often exhort our candidates to allow for experimentation and failure and to provide students with feedback regarding their developing skills. Too often, however, we do not provide this same type of environment in which our candidates can learn. We do not really mean ‘try out your ideas’ because we punish failure. We do not really honor failure as a useful step in the learning environment.”

– Girod and Girod, 2006, p.484

WGU's USE OF THE COOK SCHOOL DISTRICT SIMULATION



Western Governor’s University utilizes another simulation software, the Cook School District, which was developed by researchers at Western Oregon University. In this software, candidates are able to see the profiles of 200 students who were all developed based on the traits of real children the designers had taught before. The software designs each student profile with certain stable traits, but programs in variability due to other contextual factors; students’ achievement scores and on-task performance are impacted by candidates’ decisions via a complex algorithm. Candidates then can develop lesson plans and design assessments to meet objectives. Candidates choose from a list of instructional strategies as they seek to move students toward learning objectives and decide how long they will choose to spend on each strategy; they can also change their strategy at any point. Several built-in supports prompt candidates to reflect and analyze the simulation.

An evaluation was conducted of users’ self-reported student experiences, teacher work sample scores, and lesson evaluation scores. The evaluation found growth among teaching candidates who used the software between pre- and post-tests (Girod and Girod, 2006).

Figure 5. Screen Shot of the Cook School District Administration Instructional Strategies Page



Girod and Girod, 2006, p.486

BRANCHING-BASED SIMULATION

EXAMPLE

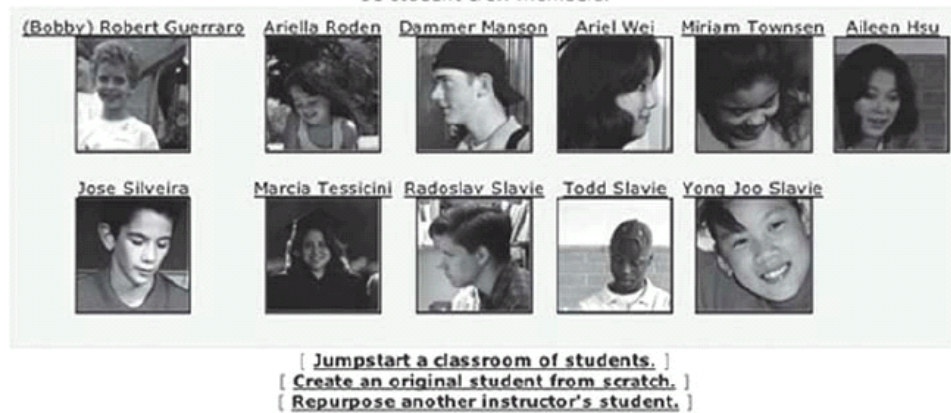
SimTeacher.com was an experimental Web site that a doctoral student created, which presents pre-service teachers with various classroom scenarios or “situations” and prompts them to make a decision based on different pre-written options. After explaining their decision, the storyline progresses based on choices students make. Pre-service teachers are allowed to do basic tasks – such as take attendance, view finished activities, and create Individual Education Plans. In an example of a student profile and scenario, pre-service teachers learn that one student, “Elizabeth Rigley,” is a kindergartner who is not interested in letters at the beginning of the year and is reading at pre-primer level by November. As a next step, pre-service teachers must decide whether to pull her aside for one-on-one testing or evaluate Elizabeth’s performance on other tasks.

Figure 6. Fictional Students on SimTeacher.com

Student Characters

These fictional students can be referenced in your situations. Your real students are considered the teachers (i.e., SimTeachers) in this simulation, so these fictional students essentially become *their* students within this “virtual school” setting.

11 student crew members.



Source: Fischler (2007)

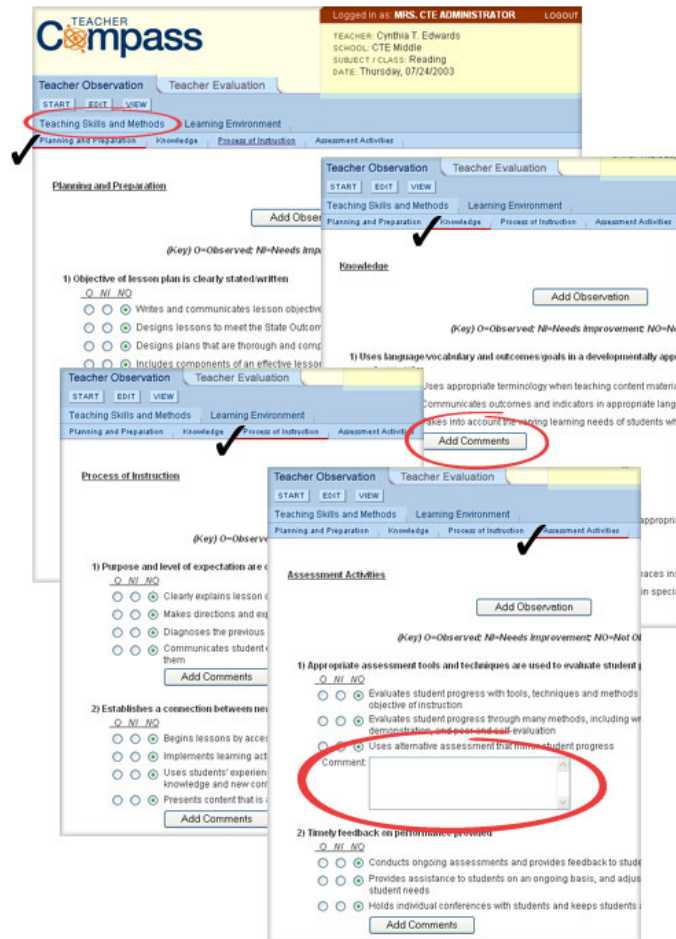
In software, scholars at the University of Wollongong in Australia designed a simulation where pre-service teachers are assigned a class of 26 diverse kindergartners such as “Bibi,” an Afghani refugee with limited English skills, “Harley,” a student with ADHD who is bullied, and “Gavin,” a student who has behavioral issues and an individual Classroom Teaching Assistant. During the simulation, pre-service teachers must make decisions related to classroom management and sequencing their lesson plan. Based on a branching logic, pre-service teachers experience consequences to the decisions they make. A preliminary evaluation found that pre-service teachers engaged in deep thinking and connected their learning with theory (Kervin, Ferry, Tubrill, and Cambourne, 2005).

Overall, there appears to be an emerging need for computer-based simulations given interest and perceived value, but a dearth of programs readily available.

Forms evaluating candidate performance on clinical field experiences are increasingly completed online.

To collect data from university supervisors, Walden University uses the Teacher COMPASS tool, developed by Johns Hopkins University. The Tool houses the standards-based observation and evaluation forms in a survey-type format; this enables university supervisors to access and fill in forms remotely and collaboratively, and furthermore share them with candidates. Its report function presents data summaries of candidate performance on standards. The tool also allows the Office of Field Experiences to oversee university supervisors' work by monitoring the progress and quality of the observations. Similarly, Walden cooperating teachers are asked to share the responsibility with university supervisors to fill out evaluations using the Teacher Compass Tool. The online format allows both candidates and cooperating teachers to become aware of the standards and expectations, and enables the field experience coordinator to monitor progress. As Walden's Associate Dean of Teacher Education states, the system encourages both university supervisors "to sit down with the student to say here is what was intended, this is what was planned, let's analyze this to see the performance level and what needs to be modified. The key here is it allows expectations to be very transparent to student and university supervisor. It's easier to collect data to make program improvements."

Figure 7. Screen Shot of the Teacher Compass Tool Where Observers Can Provide Ratings and Comments



Source: <http://cte.jhu.edu/teachercompassinfo/Tour2.htm#tour>

Despite use of advanced technology applications, certain subtle behaviors can get lost in translation in the online setting.

Despite having high admissions criteria, including Praxis requirements, disposition screeners, personal statements, and background checks, online program faculty may never actually meet their candidates in-person until graduation. Certainly the online environment provides many settings for interactions with chat rooms, discussion boards, conference calls, and video uploads. However, online learning is highly dependent on the written word for communicating ideas; for example, instead of real-time role playing, students might instead respond to scenarios in discussions through written comments. One of the biggest questions that challenges online teacher education is: “How do you leverage technology to assure we can recommend the candidate for student teaching in the state?” As one of the interviewees explained:

“When you’re [physically] in a classroom, you build in transitions and body language and acceptance that you can’t do in an online environment. So how do you find ways to deal with lapses in judgment and how do you teach those things and provide guidance so they can acculturate that way?”

In some situations, such as where intensive remediation may be needed, physically demonstrating scaffolding and modeling techniques can be hindered by the technology and distance between supervisor and student. In extreme cases, this merits an in-person meeting with faculty traveling to the placement site. Continued developments in technology applications may help to address these challenges, as would a hybrid approach with the incorporation of some face-to-face meetings into the program experience.

One of the biggest questions that challenges online teacher education is: “How do you leverage technology to assure we can recommend the candidate for student teaching in the state?”

C. The Important Role of University Supervisors and Cooperating Teachers in the Online Teacher Education Model

Because most of the interactions between candidates and faculty are computer-mediated in online coursework, by design, the cooperating teacher and university supervisor play a much larger role in providing online teacher program candidates with feedback about their interpersonal interactions and teaching techniques during the fieldwork component. In traditional face-to-face programs, faculty instructors have the opportunity to observe candidates interact with others in person and to some extent, role play instructional techniques in university classrooms. In these cases, for example, faculty can observe the appropriateness of candidates' dress, immediate reactions and behavior to others, verbal articulation of ideas, and other social competencies. However, in online programming, feedback on candidate's social behaviors is often limited to technological platforms like chat rooms, discussion boards, and occasional phone calls and videoconferences. This remains one of the largest challenges that skeptics have raised about training teachers in a non-face-to-face environment.

Arguably, in online teacher education programs, mentors, cooperating teachers, and university supervisors play an even more important role in offering feedback and guidance based on in-person interactions and observations.

Arguably, mentors, cooperating teachers, and university supervisors play an even more important role in offering feedback and guidance based on in-person interactions and observations. Eduventures SOE-LC alumni surveys have consistently found that for graduates the cooperating or mentor teacher is the most important components of their field experiences. In the online setting, mentors, cooperating teachers, and university supervisors must be even more careful, observant, and helpful in their mentorship as they may be providing the only face-to-face feedback that candidates ever receive and must pick up on nuances in social interactions. Thus, strong training and guidance to mentors, cooperating teachers, and university supervisors is even more important.

In part, ensuring that candidates have generally appropriate interpersonal skills can be facilitated by a highly selective admissions processes—an area where teacher preparation programs and online programs are commonly viewed as lacking in—in requiring a proven history evidencing impact on student learning, character references, in-person or video-based interviews, and a demonstrated number of hours of work with children and/or adults (see SOE-CRR-61 “Current and Emerging Practice: Measures for Dispositions in Teacher Education”). This might also merit providing greater reimbursements or benefits to cooperating teachers; in USC's program, administrators have recognized that online clinical faculty are compensated at higher rates.

Online teacher education programs vary in their student teaching supervisor hiring models and level of technology usage to conduct observations.

As part of efforts to serve students nationally, programs have different philosophies in how they choose to hire and train clinical supervisors who can provide comparable feedback (see Figure 8).

Figure 8. Descriptions of Strengths and Challenges Affiliated with Different University Supervision Models

	Model 1: University Supervisors Provide Feedback Via Distance	Model 2: University Faculty as Supervisors via Distance	Model 3: University Supervisors Based in Local Communities	Model 4: Local University Supervisors Based at Branch Campus
Description	<ul style="list-style-type: none"> Candidates interact with their university supervisors from a distance. Supervisors make observations through videotape review or provide webcam access into the classroom and then conduct pre- and post-conferences via phone and videoconferencing. 	<ul style="list-style-type: none"> This model relies on clinical faculty members to both instruct candidates in coursework and oversee their student teaching experiences from afar via distance technologies. 	<ul style="list-style-type: none"> Candidates interact with university supervisors in face-to-face settings. Supervisors may be hired specifically by the university to mentor individuals in the locale or region. 	<ul style="list-style-type: none"> There are multiple campus locations where operations are scaled up from teaching programs and limited to those specific states. Supervisors are local to the state, but may also be based at the branch campus.
Strengths	<ul style="list-style-type: none"> + The same supervisors for traditional students as face-to-face can be used, maintaining consistency in quality + Reliance on video may result in more frequent observations and reviews 	<ul style="list-style-type: none"> + Faculty members already have a working relationship with the candidates and are familiar with his/her work + Reliance on video may result in more frequent observations and reviews 	<ul style="list-style-type: none"> + Supervisors should have familiarity with the district and area + University is able to support candidates across the country, including in rural settings 	<ul style="list-style-type: none"> + Maintain close oversight of university supervisors + Supervisors should have familiarity with the district and area + The university has strong pre-existing relationships with local schools
Challenges	<ul style="list-style-type: none"> - Video-based review may run into technical difficulties - May be harder for supervisor to effectively communicate feedback - Supervisor may only have limited snapshot into whatever is caught by the videotape, not necessarily whole context of the classroom - Cooperating teacher must be technologically savvy 	<ul style="list-style-type: none"> - Same challenges as Model 1 - Costs may be more expensive to hire clinical faculty member who has qualifications to teach and oversee supervision 	<ul style="list-style-type: none"> - University must allocate resources to identify and recruit a locally well-trusted supervisor - University must also provide intensive training and oversight to the supervisor - Supervisor quality depends on the pool of qualified candidates and strength and comprehensiveness of university training 	<ul style="list-style-type: none"> - University must allocate resources to identify and recruit a locally well-trusted supervisor
Critical Questions	<ul style="list-style-type: none"> Can video review be as comprehensive and perceptive in identifying effective instruction and student reactions? 	<ul style="list-style-type: none"> What are the perceived learning benefits of having a clinical faculty member serve as a supervisor? 	<ul style="list-style-type: none"> Can high quality supervisors be found and trained throughout the country? 	<ul style="list-style-type: none"> Do branch campuses maintain similar levels of quality of supervisors as the central university?

Some programs like the University of Cincinnati and University of Southern California assign university supervisors who observe via videotape and provide feedback through teleconference with the student and the cooperating teacher. Other national programs prefer to hire and train local university supervisors. Yet other programs, like Nova Southeastern, limit the geographic locations in which they offer initial teacher preparation programming such that the institution can concentrate resources and ensure quality to a limited number of sites. A question that emerges for further research is what impact the variations in model – that is face-to-face versus video-based supervision – pose on candidate remediation and improvement.

A question that emerges for further research is what impact the variations in model – that is face-to-face versus video-based supervision – pose on candidate remediation and improvement.

The featured programs offer ongoing training and support to university supervisors and electronic support forums for cooperating teachers.

Naturally, many of the featured online teacher education programs offer support and training to their university supervisors and cooperating teachers in an online setting. This includes having discussion forums for cooperating teachers and supervisors to talk with colleagues about challenges they encounter and also about professional issues they are personally experiencing. Much of the training and support is oriented toward university supervisors and cooperating teachers are often given the option to. Walden University has a two-week training for supervisors that takes approximately 20 hours that involves reviewing guidebooks, curriculum, policies, and assessments and preparation on how to be an effective supervisor. Other institutions conduct trainings in person, such as at Nova Southeastern. The University of Southern California's program plans to bring their entire faculty to the Los Angeles campus on a quarterly basis and mentor teachers to campus once.

By having a national model, a network of alumni can serve as resources and mentors. Further, programs can reach rural and underserved areas.

Because many teacher education online programs can reach students across the country, these teacher preparation institutions could potentially support and connect alumni with fellow program graduates as they network, meet certification requirements, and/or move across state lines. Furthermore, as Western Governors University recognizes, graduates are by nature familiar with the school's philosophy and can serve as mentors and potentially cooperating teachers or university supervisors.

However, online teacher education programs with students in locations far from the university campus face barriers in that they have less control over, oversight of, and prior relationships with local schools.

From a logistical and organizational perspective, online teacher preparation can face different challenges in maintaining oversight on university supervisors. Western Governors University and Walden University each help candidates in identifying their placement site and local supervisors. In this model, universities have an immense task of identifying, recruiting, training, and monitoring high quality sites and university supervisors – a task that is made more challenging by the distance. This involves contacting heads of human resources districts, building an understanding of the program and university philosophy, talking

From a logistical and organizational perspective, online teacher preparation can face different challenges in maintaining oversight on university supervisors

through any questions or misperceptions, and finding trusted, well respected, and experienced professionals who could potentially serve as cooperating teachers. Some schools may be more wary of universities that are not nearby when setting up field placements or of the online delivery modality used to prepare students. For university field placement offices, part of the outreach process is educational in nature in building awareness of the program and its core strengths. As one interviewee stated:

“[As a university], we can’t select all the schools [beforehand] since our students are all over the country and foreign countries. We have less control over saying, ‘We like working with this site’ and ‘We don’t like that site’ so we have to give up those expectations. We have school districts provide paperwork back saying that they understand our expectations.”

Recruiting university supervisors involves a national search and rigorous screening process. Some of the focused institutions host regional meetings for recruiting purposes.

Albeit institutions are able to grow their own educators, it may also make it difficult to form deeper partnerships akin to professional development schools, which extends universities’ relationships with schools beyond candidate placement.

An added logistical challenge is trying to track and support students across different states.

In order to provide accurate licensing information, it is the program’s responsibility to track information and build relationships with state departments of education. From the administrative perspective, it can also be challenging to maintain accurate information about state requirements for certification and to ensure that the state standards align with their competency areas and program. For example, some states require more than 12 weeks of student teaching.

In the classroom, students’ local state environments also can introduce layers of complexity into courses – both positive and negative – when there are different expectations and learning standards coloring candidate perspectives and issues faced. As one of the interviewees described:

“Students could be from Nebraska, South Dakota, California, or New York and they’re all in the same cohort. What you find in listening to their peers working in first grade classrooms is that districts have different expectations and solutions that may not work across every state, and that understanding is important since we have a mobile society and being able to pick up and understand the culture and standards of a district, and being able to fit in [is important]. What you tend to get a lot when you observe classrooms is the statement, ‘The teacher is wrong’ or ‘The teacher didn’t do the right thing.’ So trying to put those things together...’ to build awareness about how to navigate different situations.

Findings Part II: Snapshots of Online Teacher Preparation Programs

To provide readers with a sense of the program experience and how the field experiences are designed and implemented, this section presents brief descriptions of five online teacher education programs. These descriptive case studies are presented in order listed below:

1. Western Governors University
2. Walden University
3. University of Southern California
4. University of Cincinnati
5. Nova Southeastern University

1. Western Governors University (WGU) Teachers College Initial Teacher Preparation Programs



College Offerings:	38 programs
Student Enrollments:	Approximately 7,400 students, and 6,000 of those students are in initial licensure teaching programs. The largest program, elementary education, has approximately 2,600 students. Students are taking classes part-time and asynchronously.
Student demographics:	The average student is approximately 37 years old. Students largely include career changers, such as individuals from the military and women who are returning to the workforce. The program has students from all 50 states.

Background

Western Governors University’s teacher education programs strongly emphasize reflective thinking.

The program centers on a Plan-Study-Act model, in which candidates are encouraged to first engage in planning, complete the assignment or lesson, and reflect through revision. Like many other universities, WGU has developed a hierarchy of skills in a developmental model, setting higher expectations for students as they progress further along in their preparation. WGU has developed an extensive curricula and competency-based model where students work on skills in their individual Action Plans, akin to an Individualized Education Plan. To ensure consistency in high standards, Janet Schnitz, Dean of Teachers College, reports that, “All the assessments are the same so the students have to provide the same level of mastery or competency, and are not influenced by the instructor or performance.”

According to the dean, graduates’ employers report that WGU student teacher candidates are typically as well or better prepared than candidates from other teacher preparation programs and it isn’t uncommon for candidates to be hired before completing the program.

There is a strong community of support for students throughout the program experience.

Students have different mentors throughout the program. These mentors work flexible hours and have loads of up to 80 to 100 students. At WGU, “The mentor starts with [candidates] at the beginning and follows them throughout the program. The mentor is there to provide them with consistent advice for how to proceed through their program with questions about policies, procedures, academic progress, scheduling of assessments, things they need to do to graduate and certify” (Dean of Teachers College).

“It’s really unusual in an undergraduate program to have a relationship with a person who is credentialed and also has experience as a role model that can work with them throughout their entire program... When you think about it, having someone who has taught for four, five, or thirty years to provide advice and counsel to keep you moving through your program and who can answer questions about jobs is unusual.” – Janet Schnitz, Dean, Teachers College, Western Governors University

Additionally, WGU candidates have access to other sources of support: “Within each content area, they are provided with a content mentor that will provide them with support in the pedagogical support area they’re studying. We’ll identify learning resources for them, prepare them for assessment, and answer questions if they’re finding difficulties with their studies with study skills support and access to tutoring if needed.”

Figure 9. Screenshot of Learning Community for Finance Students



Source: Western Governors Web site

Field Experience Model

WGU sets up the field experience for candidates through hiring local university supervisors.

An advantage to using local master teachers is their familiarity with a district’s climate and expectations, so they are able to “be assessing from the district’s expectations” and within WGU’s competency-based model. The hiring process begins when a university placement specialist contacts the human resources director of the student’s local district to identify a host/master teacher who “is well known to the district and who has the credentials.” Clinical supervisors undergo training and have a full handbook with a timeline and “expectation of consistency of what they’re doing in the classroom at what point.”

The field experience is very structured.

Host or cooperating teachers have a checklist of activities and experiences to provide candidates with. These include experiences that are oftentimes haphazardly organized in traditional student teaching experiences. For example, students are required to attend other colleagues’ classrooms “for mini-lessons and participation at different levels so they can see different styles of teaching and develop different teaching [approaches].” Additionally, principals are formally asked to conduct one of the observations to provide feedback, in recognition that “principals are the ones doing the hiring and can tell us if there’s a strong fit and the particular culture that s/he is filling in the building. It’s very valuable feedback... [and for the candidate, if] there’s a good opportunity for future placement.”

Overview of WGU Field Experience
<ul style="list-style-type: none"> • 12 weeks in full-time student teaching • 8 hour-long observations, including pre and post-conference • Checklist of activities and experiences for cooperating teachers • Local university supervisors are hired

In total, candidates spend twelve weeks of full-time demonstration teaching in a classroom in addition to the practicum. The clinical supervisor has to complete 6 hour-long observations and a pre- and post-observation conference at the beginning and end of the demonstration teaching, allowing for 8 opportunities for feedback. According to the dean, the rubric that supervisors fill out is so comprehensive, “most [supervisors] want copies with what they’re doing” for use outside of WGU. Additionally,

candidates' teaching is videotaped, and these videos are shared with their cohort and can be offered as a topic for discussion.

Technologies Used to Support Field Experiences

WGU uses numerous technologies to support student learning.

These technologies include Adobe Connect, instant chat, podcasts in some cases, web cameras with online whiteboards, webinars, and other software applications. Western Governors also uses simulations like Western Oregon University's Cook School District where individuals engage in adaptive lesson planning based on students with different characteristics (featured earlier). Western Governors is also experimenting with Web cameras so that university supervisors can observe students while they are in the classroom.

Like other programs, WGU frequently uses video footage to mentor candidates in their reflection skills.

Prior to demonstration teaching, candidates spend 100 hours conducting classroom observations, of which approximately 40 hours are spent viewing and analyzing video footage. Since implementing these pre-clinical experiences and video clips two years ago, WGU found an improvement in developing students' reflective judgments. Through access to a diverse range of videos with different instructors, grade levels, levels of inclusion, states and geographic regions, and teaching models, students are mentored on how to observe a classroom. Videos are considered a way to prepare for possible situations in the classroom. The pre-clinical preparation involves making judgments in various areas, such as which instructional methods to apply when and applicability to standards.

In recognizing that students can be "overwhelmed and over-stimulated by what's going on in the classroom and the whole experience into traditional programs," videos can be re-watched several times to deeply analyze the classroom. Instead of candidates noting more superficial components, such as "describing bulletin boards and the arrangement of the classroom," candidates are guided to peel "back the layers to see instructionally what's happening or identifying biases that the teacher might have." One time they might watch the watch the videos focusing on questioning strategies and the subsequent time looking for behavior management: "We re-use video to get the candidates to see there are many things going on in the classroom at once."

Summary of Technologies Used in WGU Programs

- Simulation (Cook School District)
- Adobe Connect
- Instant messenger
- Podcasts
- Online whiteboards
- Webinars
- Video clips of master teachers and candidates

"We have spent a lot of time on a model we've created which is developing reflective capabilities. We want candidates to reflect on their performance and make changes to their instructional process based on data and their reflection of what worked well and in the process. It's our belief that you can't expect teachers to know this right away. It's a process that must be trained and mentored in... The research we've conducted on this shows they're developing good reflective capabilities before they get to their clinical placements."
– Janet Schnitz, Dean, Teachers College at Western Governors University

2. Walden University's Richard W. Riley College of Education and Leadership Initial Teacher Education Programs



When Online Initial Teacher Education Programs Began:	January 2008
Program Size:	3 master's degree programs, including early childhood licensure (birth-age 8), Special Education - Learning Disabilities, and Special Education - Emotional/Behavioral Disorders (K-12)
Student demographics:	Students are from 25 states and over 150 districts. Many students are over 30 years old and may have experiences as substitute teachers or paraprofessionals. As a university, Walden supports individuals with much life experience.

Background

Like Western Governor's University and University of Southern California (discussed later), Walden University's master's degree programs in teacher preparation are relatively new.

The master's degree program is estimated to take 20 to 24 months for completion. A tremendous amount of thoughtfulness has been placed in designing the experience to ensure that all teacher candidates obtain a consistently high quality education. Walden coordinates its instruction across the clinical experiences, coursework, and assignments in a carefully designed sequence. Beginning in the first semester, candidates must complete five hours of field experiences and begin the Virtual Field Experience™, a video-based clinical experience. In their second semester through their student teaching experience, candidates are also placed in classrooms.

As Walden scales up its programs, it is continuing to learn from its experiences through evaluations and reflections on its practices. The challenges that the teacher preparation program's administrator reports experiencing are really no different from the challenges that face-to-face programming encounters – of ensuring that candidates are prepared to be effective teachers in the field.

Field Experience Model

Like Western Governors, Walden has a localized, "grow your own" approach where the university finds candidates' placements and supervisors.

When candidates first enroll, they are asked to provide information about their existing school and district relationships in a Preferred Site Placement Form. This form requests for leads on where candidates substitute teach, volunteer, or work as a paraprofessional, and helps to identify potential districts where they may be placed. The Office of Field Experiences then contacts the district's human resources office to secure placements in schools that guarantee that they can provide specific types of learning opportunities for candidates. As the Associate Dean stated, because candidates are placed locally, this model enables candidates to serve the community and aids in a grow-your-own approach.

University supervisors are recruited through national searches and they go through intense training.

To identify university supervisors, staff members from Walden’s Office of Field Experiences place advertisements in local and national education publications. To qualify for the position, university supervisors are required to hold a master’s degree in the field in which they are teaching, three years of teaching experience, one year of teaching experience at the grade level, and “verified teaching experience at the level of the supervisory responsibilities.”

University supervisors undergo a two-week online training course that takes approximately 20 hours and awards an honorarium. The training introduces supervisors to Walden policies, curriculum, assessment, and guidebooks and builds supervisors’ understanding of online learning. Additionally, supervisors are trained on how to interact effectively with cooperating teachers and teacher candidates and on how to use the online evaluation form.

Supervisors participate in discussions on assessments, communications, and roles and responsibilities; an online forum called “The Playground”; and a discussion board where supervisors can pose questions and comments to fellow university supervisors throughout the year.

On-site, there are structured requirements for university supervisors, such that they visit the teacher candidate seven times during the 14 week semester. During each of candidates’ two field placements, the supervisor makes at least three hour-long visits (two observations and one formal evaluation). During observations, supervisors assess candidates against a well-defined set of knowledge, skills, and dispositions.

Candidates have multiple placements.

Beginning with their second semester, candidates are in classrooms for 1.5 hours each week or 22.5 hours a semester. In total, candidates spend 45 hours in the classroom. In their final semester, candidates spend 14 weeks full-time in demonstration teaching or student teaching. Special education candidates conduct one 7-week placement in a primary school setting and the other in a secondary school setting. In early childhood, candidates spend one 8-week placement in a primary setting and one 6 week placement in a pre-primary setting. Supervisors visit a minimum of seven times during the semester, which is approximately every other week. They are required to conduct at least three visits per site, where they must conduct two observations and one evaluation in collaboration with the cooperating teacher.

“One of the true advantages that our program offers [is the recognition that] our candidates are residents of a locale; they live in a district or nearby. We’re putting them in classrooms... where they will serve the community, not necessarily the building, but their community... Our candidates are intending to be contributors to the districts and environments [to which they belong.]” –Dr. Richard Simms, Associate Dean

Overview of Walden Field Experience

- Two 7-week student teaching placements for a total of 14 weeks.
- At least three formal observations per placement, but seven visits in total
- Observations and meetings with supervisors take no fewer than 60 minutes
- Local university supervisors are hired and undergo 2-week training

Technologies Used to Support Field Experiences

Candidates gain awareness of classroom experiences through the Virtual Field Experience™ (VFE™) videos.

In each Walden course, students are required to watch 3 to 5 hours of footage or a total of 30 hours of virtual field experience of teachers in action. As described on the Walden Web site, it “is an organized, purposeful, and thought-provoking experience that allows you to see best practices demonstrated on video by master teachers across the United States” and which allows exposure to “diverse students, teachers, teaching styles, and classroom settings.” This includes teachers in different fields – of reading, special education, and language arts—and grade levels. According to the Associate Dean of Teacher Education, what sets the VFE™ apart from other institutions is the high quality and holistic nature of the video footage, demonstrating both the teacher’s and students’ actions. After the classroom snippet, the featured teacher provides a review and reflection on the taped episode. Another strength of the videos is the breadth of the content that is covered. These videos are used across different programs, including outside the initial teacher preparation programs, and are from diverse classrooms from across the nation.

“[Virtual Field Experiences provide] readiness in helping them understand how to look and review a classroom efficiently, correctly, effectively... Their first semesters, it’s not just go in and observe, but here’s what we would like you to look at in practice.”

–Dr. Jennifer Arndt, Director of the Office of Field Experiences

A primary goal of incorporating the video into the teacher education experience is for candidates to “understand how to look at and review a classroom efficiently, correctly, and effectively.” According to the Director of the Office of Field Experiences, it reinforces the same practices that they are expected to hone when in the practicum: “We very consciously said, let’s provide our candidates with the tools that they need to be a constructive observer and take that into their own practice.” Videos are tied to specific competency areas like classroom management so that after viewing the virtual field experience and critiquing and discussing the teacher’s actions, they are able to transfer the skills they’ve just developed when observing their cooperating teacher’s classroom management skills in their placement.

Some Technologies Used in Walden’s Teacher Education Programs

- 30 hours of Virtual Field Experience™
- Online forums for university supervisors and cooperating teachers to fill out via Teacher Compass

Other tools include coordinating electronic feedback forms to explicate requirements.

To collect data from university supervisors, Walden University utilizes the Teacher Compass Tool, developed by Johns Hopkins University. Walden and Johns Hopkins are in their second year partnership in refining the use of the Teacher Compass Tool with teacher education candidates.

The Tool houses the standards-based observation and evaluation forms in a survey-type format; this enables university supervisors to access and fill in forms remotely and collaboratively, and furthermore share them with candidates. Its report function presents data summaries of candidate performance on standards. The tool also allows the Office of Field Experiences to oversee university supervisors’ work by monitoring the progress and quality of the observations. Similarly, Walden cooperating teachers are asked to share the responsibility with university supervisors to fill out evaluations using the Teacher Compass Tool.

3. University of Southern California’s Rossier School of Education: MAT@USC Program



When Online Initial Teacher Education Programs Began	2009
Program Size	The program is geared towards aspiring teachers and practicing teachers. Graduates earn a master’s degree and/or credentials in single or multiple subject areas.
Student Enrollments	Approximately 800 students are anticipated over the first year. A recent <i>Inside Higher Education</i> article profiled the tremendous growth the program has experienced in shortage areas like science, and its enrollment of higher percentages of black students (11%) than in the face-to-face program.
Student demographics:	The average student is 28 years old. The program serves candidates from 45 states and thus, students largely come from across the country. Most candidates are career changers.

Background

The USC program has experienced tremendous growth.

In partnership with the company, 2tor, in early 2009, USC began enrolling students into its online Master of Arts in Teaching program. The program is expected to enroll over 800 students in its first year with candidates hailing from across the country.

The program takes a sociocultural perspective and offers a set sequence of courses.

USC’s one-year teacher preparation program takes a sociocultural perspective in questioning what teachers need to know to facilitate student learning. According to Associate Dean, Dr. Melora Sundt, the program begins by “helping [candidates] understand themselves and their beliefs” and “strengthening their repertoire around learning—in particular for each academic discipline, [our approach] asks what are the fundamental characteristics of knowledge, and how learning works for that discipline.” Candidates first take a Framing course, which is an unmediated four-week course in which candidates are asked to “reflect in a deep way about themselves” and their beliefs about schooling. They engage in assignments that include writing about their philosophies, interviewing a local, community based organization, interviewing a parent/principal, and observing relationships in the school. Other courses include Understanding the Social Context for the Urban School, Application of Learning Theories to Classroom Practice, Human Differences and Teaching Special Populations, Instruction for English Language Learners, and pedagogy in subject areas.

“We’ve not been bound by traditional barriers like cost. This program gives our faculty the opportunity to say, regardless of delivery mode (online or face-to-face), what should the program be like if you used all the research on best way to prepare teachers? That’s how we tried to create it. It wasn’t ‘this is going to cost too much so figure out a compromise.’ The driver has been ‘What’s the best way to do it?’”

– Dr. Melora Sundt,
Associate Dean of Academic Programs

Unlike the other profiled programs, there are two one-hour synchronous meetings each week in addition to asynchronous assignments and activities. Candidates engage with the content using an interface that emphasizes social networking.

Each week, candidates are able to see and speak to each other on video and conference call lines during regular class meeting times. The videoconferencing software allows for breakout groups, PowerPoint-based discussions, whiteboarding, and the sharing of documents, creating an experience that is similar to the face-to-face classroom experience.

The online platform also takes a Facebook-type social networking approach, where classmates each have profiles and walls, enabling classmates to easily network and communicate with one another. The associate dean finds that the social interface replicates the way candidates are communicating with one another outside of class.

Field Experience Model

Candidates are in local schools beginning with their first course.

Candidates are matched with a local school during orientation, and start observing instruction during their first course. About six months into their program, candidates begin their 20 weeks of student teaching; in accordance with California regulations, candidates' time is split between two different levels. As this is a relatively new program, the first cohort is undergoing student teaching (called "Guided Practice") for the first time.

USC works with the company, 2tor, to assist with administrative functions such as the online platform and student teaching placements.

While 2tor leads the recruitment process, USC makes all admissions decisions. 2tor also assists with identifying school sites and guiding teachers (the classroom teacher with whom a candidate works), while USC has final approval of all sites and guiding teachers, and provides training on specific mentoring behaviors it seeks with cooperating schools. Guiding teachers are coached to not pose traditional questions, such as "How did it go today?" but to probe for intentionality when reviewing the video footage with the candidate, asking candidates questions such as, "What were you thinking about here?" "What made you go in that direction?" With 2tor, USC is also developing a portal for all the guiding teachers not simply to discuss the mentoring experience, but also to allow them to connect with other guiding teachers on a professional level.

Overview of USC Field Experience
<ul style="list-style-type: none">• Two ten-week student teaching experiences at different levels• University faculty member conducts supervision via video• Supervisors undergo training and visit to campus

In its approach, USC has removed the field director as coordinator or "middle man" and instead has faculty members serve as university supervisors.

Many of the USC faculty who supervise students in Guided Practice will have worked with the candidates by the time they enter that phase of the program. In support of the program's growth, USC created a new category of faculty who are based outside of California. These faculty will likely be on campus quarterly.

Technologies Used to Support Field Experiences

Student teaching supervision is conducted virtually via video.

Candidates are encouraged to purchase personal video recorders (see Figure 9). Self-made videos are used throughout the program, beginning with Orientation, during which candidates are asked to record themselves teaching another person a task and debriefing about their approach and philosophy; this video is analyzed later in the Learning Theories class and for pre- and post-assessments.

Some Technologies Used in MAT@USC

- Handheld video recorders
- Adobe Connect
- Whiteboarding

During the student teaching experience, candidates talk to their guiding teacher about what they'll do that day, then videotape it, and record their conversation about what they learned about their ability to facilitate learning. Candidates are required to take recordings of themselves and upload the recordings every day, and formally review videotape with the university supervisor once a week either synchronously or asynchronously. This process gives supervisors a more frequent view of candidates in the classroom. According to the associate dean, "We can see daily video of the candidate, which is a contrast to our old teacher preparation program in which we didn't get the chance to observe [candidates] in the classroom every day." Additionally, candidates meet with the cooperating teacher daily.

Like the other profiled programs, USC uses video that it has professionally produced of actual classroom interactions to illustrate points.

Faculty work closely with 2tor's instructional designers to use the online modality to enhance learning as much as possible.

As the associate dean reports that they have integrated instructional designers into the course development process to help maximize learning in the online modality: "The tech designers sit with us as we create every course and they begin to understand what we want to do. So when we have questions about how to teach something online, they ask, 'What would you do normally?' You might say, 'I have students create a basic shell of a timeline and we talk about why they are important.' They say, 'You can do that *and* you can add events to it through audio, photo, video.' Then they show me examples. I don't know how to create a multimedia timeline in a traditional classroom, but in this case, they built it for me, and now it runs through the entire online program." The associate dean notes that USC@MAT has invigorated a debate at the SOE about what good instruction means.

Figure 9. Sample Handheld Video Recorder MAT@USC Students Can Purchase



Source: MAT@USC Web site

As the program is relatively new, the types of technologies that MAT@USC is integrating into the course experience are being integrated in different phases. Moving forward, USC will be exploring simulations using avatars. One potential simulation may be in violence prevention, whereby the simulation could replicate different crises in a classroom and help teachers think through the impact of different strategies for addressing student behavior.

University of Cincinnati (UC) College of Education Criminal Justice and Human Services: Early Childhood Associates Degree Program



Student Enrollments	Approximately 650 students
Student Demographics:	Approximately half of the program’s candidates are located in Ohio and most are enrolled part-time; thus it takes them four years for program completion. All courses in the Early Childhood program are offered in Spanish, including video, instruction, and readings. As such, the program offers a bilingual Spanish-speaking advisor and also lists a preference for adjunct faculty who are Spanish speaking.

Background

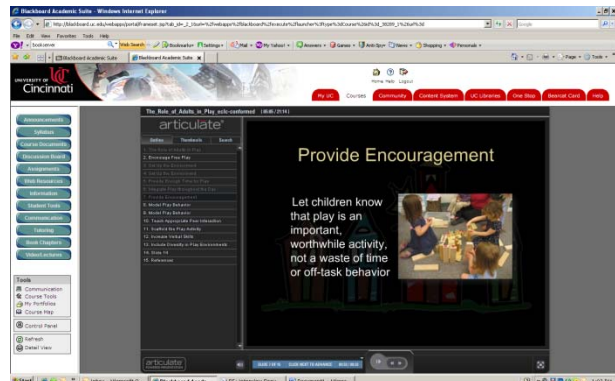
The University of Cincinnati’s Early Childhood Learning Community (ECLC) associate’s degree program is geared toward practitioners.

For many students who are working at a Headstart preschool, increasing federal legislation and accreditation requirements oftentimes make obtaining a degree “the only way” for candidates to keep their jobs. Given the population of candidates the program is geared toward, course discussions and instruction are very practice-oriented. The program’s mission recognizes its diverse learners and the flexibility they seek to promote in their programming, as is stated on the program website: “ECLC

embraces a diverse population of students, recognizes their multiple life priorities and endeavors to provide them with an accommodating educational experience. It also provides individualized student support and technology training to assure students have the opportunity to reach their educational goals without visiting campus.” Guiding principles of the program are to: provide accessible education to early childhood teachers, support teachers, families, staff, administrators, and the children they serve; help centers and programs meet federal mandates and the educational goals of their teachers; strengthen workplace learning; and to create technology-proficient teachers.

The program director states that the online program is held to the same high standards as its face-to-face programming. The online program is also regulated through its NCATE accreditation and as such, according to the academic director, “we collect the same data about online effectiveness and it’s still reviewed through our NCATE procedures.” Further, the program undergoes continuous improvement efforts based on data it collects.

Figure 11. Screen Shot of Program Video



Source: University of Cincinnati Web site

Field Experience Model

Candidates select their own placement sites which are subject to UC approval.

Because candidates are oftentimes already working as preschool teaching aides, the program does not assist in identifying a placement site. Typically, candidates use their workplace as the site for their field experiences so long as it meets a set of criteria (e.g., placement is a licensed/accredited facility and hold a constructivist philosophy). Mentor teachers, who are oftentimes candidates' employers, are expected to meet several requirements, including that they: must hold a degree in early childhood or pre-kindergarten; have a minimum of three years teaching experience, have access to high speed internet, and submit their resume for approval. Additionally, mentors are expected to have a knowledge of and appreciation of constructivism, positive communication techniques and transitions. There is also a one-hour course available for mentors that they are able to take; however, it is their choice to take it since they are not compensated for their time.

Overview of UC Field Experience

- Candidates complete 400 hours of field experience, oftentimes at the place they are employed
- Observations are conducted via video
- Cooperating teachers may take a one-hour training course

Technologies Used to Support Field Experiences

As in the USC example, UC university supervisors provide support from a distance.

In their practica and internship experiences, candidates are required to take 20 to 45 minutes of raw footage of themselves conducting particular types of activities and lessons in the classroom. Candidates complete three recordings per field experience in their field experiences, thereby creating a total of 9 videotapes. Candidates also complete a self-reflection for each video. After uploading the unedited, unstopped videotape on the course site, the university supervisor has the opportunity to review the videotape. Via conference call, the pre-service teacher, mentor teacher, and university supervising teacher review 30-60 minutes of the tape together. UC is also increasingly using Adobe Connect to integrate playback of the video recording into the actual meeting, allowing the reviewers to play and stop the recording to provide feedback. According to the academic director, Laura Dell, the benefits to videotaping are very powerful when candidates get to see themselves in action.

UC requires a higher number of field experience hours (400) than the state requires (300). It also requires a higher number of videotape submissions than its face-to-face programs. The university does not provide the video camera to candidates, although their platform is able to process a wide variety of media, such as VHS, hi-8 cameras, DVDs, mini-DVDs, flash drives, and mini-SD drives.

Some Technologies Used in UC's Early Childhood Program

- Videorecorders
- Adobe Connect
- Streaming video
- Video case studies
- Adobe Presenter
- Captivate

“[Videotaping] can be an eye opening experience [to see] where you could've made a different choice there. It becomes a more in-depth experience than having someone watch you through the day. The level of critical analysis when seeing it yourself [is higher].”

– Laura Dell, Academic Director



Student Enrollments:	Over 15,000 students. Approximately 7,400 students, 6,000 of which are in initial licensure teaching programs (81%). The largest program, elementary education, has approximately 2,600 students. Students are taking classes part-time and asynchronously.
Student demographics:	Many students are working part-time; some are transfers from local community colleges. In the School as a whole, students are from approximately 30 states and more than a dozen states.

Background

Unlike other profiled programs, Nova Southeastern University (NSU) limits initial teacher certification to two states: Nevada and Florida.

However, in the event that students move, NSU works with the students to find arrangements. For example, when a student relocated from Florida to Virginia, the Office of Placement Services assisted in locating a placement. According to the Director of Placement Services, the online program mirrors the on-site program using the same syllabus and standards.

Field Experience Model

Similar to University of Cincinnati’s model, candidates are expected to find their own field placements. However, if a particular school district does not allow self-placement, the placement will be coordinated in the Office of Placement Services

During the course of the program, candidates are required to find a minimum of three different placements and, for some students, the number of placements can range to five or six, with the purpose of giving candidates the opportunity to experience a variety of settings. Each course carries a 10-hour field experience component in the Undergraduate Program, although some of that time may involve virtual field experiences, where students view pertinent video clips. The internship (student teaching) consists of 12 weeks with progressive assumption of responsibilities. By Week 6, candidates are expected to assume complete responsibility of the classroom, from planning to teaching, assessment, and classroom management.

Overview of NSU Field Experience
<ul style="list-style-type: none"> • Twelve weeks of student teaching or 450 hours, field experience of 250 hours • University faculty member conducts supervision via video • Supervisors undergo training and visit to campus

During the internship, the university supervisor conducts four on-site evaluations though it may be more frequent if candidates demonstrate significant weaknesses.

The evaluation consists of reviewing the candidate’s lesson plan, lesson delivery, behavior management, and completion of other instructional tasks. At the end of the observation, supervisors provide detailed feedback on strengths and weaknesses and provide suggestions for improvement. This includes targeting a specific competency as an area for improvement.

Supervisors include full-time faculty and adjuncts; some are based on campus and others are not. University supervisors are often retired principals who complete a three-day educator training and must have a sufficient number of ESOL credits and be able to work with students of diverse backgrounds. All university supervisors attend a one-on-one three-hour training led by the Director of Placement Services, during which the Handbook is reviewed. Supervisors also attend two hour-long group meetings each year which review best practices in supervision and address issues or concerns that arose from fieldwork.

- | Some Technologies Used in NSU’s Teacher Education Programs |
|---|
| <ul style="list-style-type: none">• Chatrooms• Streaming video• Texting• Smart Board• Promethean• Simulations• Elluminate |

Technologies Used to Support Field Experiences

Nova Southeastern offers a comprehensive library and technology platform for students to use. This includes chat rooms, Elluminate, video clips of lectures, email, texting, and simulations.

Like other programs, the teacher education program has students review videos to supplement their clinical experiences.

The virtual field experience involves observation and discussion by focusing students on particular components, such as classroom management. As the Director of Placement Services described, “We can control that if we feature a video, whereas that may not be the case otherwise, as they may not see best practices [in the field.]”

Simulations are less immersive-oriented and are akin to a long-term case study.

Nova Southeastern does provide classroom simulations in different areas at the undergraduate, master’s and doctorate levels. Using Tata, Nova Southeastern faculty has spent over a year developing a mini-course where a group of students works to discuss how to handle particular situations and achieve consensus. At the undergraduate level, the focus has been on coping with classroom diversity. The Director of Placement Services describes the diversity simulation in the righthand box. According to the director, “The virtual experience more closely monitors real life and is highly motivating to students. They become more involved when there are pictures or clips or even avatars. This type of technology is motivating to today’s students.”

“In the diversity simulation, the [teacher candidates] are introduced to ‘their’ students in a virtual classroom. They are provided with a descriptive paragraph that provides background information on the students’ characteristics and personal traits. The teacher candidates read and discuss all of the information provided; a photograph accompanies the description, and the problem situation is presented. The one that I saw recently was where a student berates or makes fun of another student and his culture and there is some name calling. Students work in groups to say how they would resolve the conflict. It’s actually a mini-course; it’s not a quick case study. The professor monitors the interactions of the teacher candidates who work in groups to provide possible solutions. It’s monitored by the professor, suggestions are given. They have to be sure to validate why they chose this particular approach and come to consensus – and so it’s a true simulation through Tata...”
– Marliese Hogan, Director of Placement Services

Analysis and Implications

Five years ago, preparing brand new teachers online was unthinkable.

Still, to many traditionalists today, the de-emphasis of the school of education as the physical site of teacher preparation is a jarring concept. As the findings demonstrate, there are similarities across modalities. This includes the critical importance the school-based classroom experience plays in teacher preparation. Like traditional face-to-face programs, online programs also have the immense task of identifying effective cooperating teachers and supervisors and structuring meaningful classroom-based experiences.

Major advances in teacher education emerge from the online preparation modality.

Because many online teacher education programs are brand new, they have the opportunity to design the program based on an understanding of how to prepare effective teachers in the 21st century and with the latest technologies available. The profiled programs' clinical experiences demonstrate that they are carefully designed with frequent check-in points, observations, opportunities to provide feedback, and high levels of student support. Candidates are exposed to different classroom situations and settings via a broad selection of footage and asked to reflect on these experiences. In some field experiences, such as Western Governors, formal structures are in place for teachers to observe multiple classrooms in the school. One might argue that because of the public skepticism online education faces, online teacher preparation has been forced to meet higher standards that can in turn help transform the rest of the field. Additionally, one might also argue that the scalability of these programs mandate high standards and consistent educational experiences to serve large numbers of teaching candidates.

The online delivery modality underscores the importance of supervisors and cooperating teachers in field experiences and leveraging technology to enhance exposure to the K-12 classroom in meaningful ways.

In online teacher education, greater responsibility and importance is placed on the cooperating teacher to detect any cues indicating a need for dispositional remediation and provide immediate, real-time feedback that is unmediated by technology. Thus, identifying cooperating teachers who are effective as professionals and as mentors becomes even more important, and providing them with ongoing support and training is crucial.

Additionally, the online delivery modality lends itself to computer-mediated learning and creates a consistent program experience for candidates. Online, each candidate has easy access to videos of good practices in diverse classrooms and settings that can hone observation and reflection skills and prepare candidates for situations in the classroom and potential ways to react. There are also opportunities for simulations. Each candidate participates in ongoing discussions through bulletin boards. Certainly greater usage of technology can be transferred to face-to-face programming. However, as one interviewee noted, the level of impact and intensity these tools have in face-to-face programming is lessened due to a reliance on other modalities as the primary form of communication.

One might argue that because of the public skepticism online education faces, online teacher preparation has been forced to meet higher standards that can in turn help transform the rest of the field.

Good Practices from Online Delivery Modality

- ✓ Frequent check-in points
- ✓ High levels of support
- ✓ Careful design across program and within courses
- ✓ Immersive coursework
- ✓ Consistent instruction and assessments
- ✓ Technologically enhanced learning
- ✓ Ability to view various classrooms, teachers, and classroom situations through video clips

From interviews with the five different programs, a set of good practices surfaced that may apply not only to wholly online programming, but more broadly to all teacher preparation programs regardless of the program’s delivery modality.

Because online instruction is planned and executed from a distance, by design it must be well thought out and in many ways, prescriptive with differentiated staffing roles to create consistency. This also allows for scaling up, enabling programs to operate on a national level. Figure 12 highlights good practices that can be learned from one or more of the featured institutions.

Figure 12. Descriptions of Strong Components in (Online) Teacher Programming

Good Practice	Description
Strong processes for student advising and personalized attention	Each student has an assigned advisor who knows the candidates’ strengths and weaknesses well, and access to peers and content experts to further discuss practices. Personalized plans are developed, goals are set, and progress is measured on an ongoing basis. Classes are small so that faculty know candidates well and the learning experience is intimate.
Comprehensive, well thought out educational program with high standards	The curriculum is planned holistically and thought out in detailed fashion, such that assignments, resources, and assessments correspond with learning goals throughout the program of study and instruction is consistent.
Integration of greater classroom experiences, through video review and recordings	Candidates have the opportunity to reflect on their own and others’ experiences in the classroom, building up a repertoire of good practices, common and different situations one might encounter, and strengthening their observation skills. These experiences simulate authentic settings.
Clinical component which is central to preparation program	The programs place strong emphasis on maximizing candidates’ time in PK-12 schools, through a comprehensive checklist of activities and standards they have to meet.
Strong oversight and training to cooperating teachers and university supervisors	University staff members oversee trainings of all university supervisors and cooperating teachers and ensure they have access to ongoing online trainings and community. Teaching faculty and supervisors should also work closely together to enable a smooth transition from coursework to practice in student teaching.
Cooperating teachers are selected for candidates	As opposed to candidates going into their own school and district and trying to locate someone whom they hope will meet basic criteria, the university finds exemplary teachers with strong history of effective practice and pairs them up with students.
Accessibility and support for candidates to take course from rural locations and in accordance with their lifestyle	The universities are willing to work with candidates and support them, even if they move, truly placing the student at the center of the program. Many personal goals are tailored for each candidate based on his/her strengths and weaknesses.
Program carries accreditation and/or strong accountability measures	Accreditation of online programs provides verification that candidates are meeting high standards set by the teacher education field.
Usage of advanced technologies that are highly interactive in nature	Because teaching is a face-to-face profession with high levels of interaction, and because online learning can be isolating by its nature, programs should leverage technologies that allow students to interact with their peers and faculty in authentic ways. This includes videoconferencing, uploading video, and platforms that facilitate easy exchange of ideas.

Still, there are challenges that the online teacher education field faces.

Despite the advances technology has created in online teacher education, critics might question the potential over-reliance on technology usage. Can observing and reflecting on videos and engaging in simulations truly be experiential enough to transfer to practice? Another ongoing challenge is identifying and integrating new technologies that are perceptive to the candidates' interactions and that ultimately help detect candidates' readiness to teach in the classroom.

Additionally, three institutions reported encountering student and faculty members' misperceptions about such programs as online education is still a relatively new field. As one interviewee stated, students can mistakenly think that online courses can be easier: "Sometimes students think that it's for working adults, it'll be less work than on campus, which is not true. They don't take less time but normally take more time." As another interviewee corrected, participation is not whenever candidates choose; there are set days they must complete assignments and post to the bulletin board throughout the week (e.g., Wednesday, Sunday). Similarly, many faculty do not realize that there is a constant community where greater clarity is needed; they need to "make sure everything is very clearly spelled out in advance." Further, the online modality poses the need for regular feedback and communications with students: "There has to be constant communication... we really encourage 24 hour turnaround time at the very latest, 48, because they need constant/regular feedback to make sure [candidates] are on track."

More broadly, online teacher education models relinquish control over student placements and face-to-face interactions with teaching candidates. In some cases, universities forego the opportunity to build strong and deep relationships with most schools they are placing students in, due to the fact that candidates are being placed in local districts across the country and repeat placements may not occur. In other cases, candidates may be accessing minimal expertise and quality control when they must find their own cooperating teacher who meets basic criteria.

Online teacher education also reveals challenges that the teacher education field faces as a whole.

Given the increasing emphasis on clinical experiences, there are continued opportunities to facilitate the selection and support of effective cooperating teachers and university supervisors. There is a need to evaluate practicing cooperating teacher as both a mentor and as an effective educator who has positive outcomes on student learning. Too often programs scramble to find enough cooperating teachers to meet demand.

Further, with differences across programs of what the field experience looks like, it appears that a more rigorous set of national guidelines be in place for what constitutes a quality student teaching experience, activities that candidates should experience, and how often observations should be conducted.

Challenges Online Teacher Education Faces
✓ Difficulty in assessing social competencies
✓ Lack of public understanding of online programs, including scheduling, quality, and attention to instructional design
✓ Greater requirements of faculty attention
✓ Less control over placement schools
✓ Lesser opportunity to build deep relationships with local schools if placements are national
✓ Questions about what, if any context, is missed in video-based observations

As other institutions also seek to offer online initial teacher education programming, there will need to be rigor, ample access to resources, and implementation of many of the good practices elucidated in this report for online teacher education programs to offer a rich, high quality learning experience.

While these five programs have exhibited good practices and demonstrated that it is possible to create notable online teacher education programs, a more thorough review of outcomes data can help determine the effectiveness of programming. Like with face-to-face programs, there can be variation in the quality of programming and it is quite plausible that the featured programs do not necessarily represent what other programs around the country look like. Moving forward, institutions that also seek to offer quality online initial teacher education programming should similarly be rigorous and provide ample access to resources and support.

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