The Washington Association of Colleges for Teacher Education

What Colleges Are Doing To Prepare Instructors To Teach Online Courses

July 23, 2008

From: Bob Cooper, WACTE Legislative Liaison
To: Senate Committee on Early Learning & K-12 Education
re: On-Line Learning

What follows is in response to the question of what colleges are doing to prepare instructors to teach online courses. This response has been prepared from information provided by members of the Washington Association of Colleges for Teacher Education.
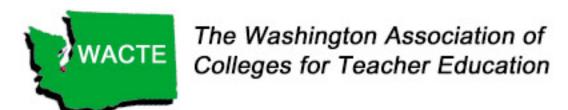
Many institutions are interested in the subject, and some are more deeply engaged than others. And remember: current teacher candidates grew up, for the most part, with computers as ubiquitous as telephones, cars and refrigerators – they are a normal part of life, not an add-on. Coupled with current instruction in pedagogy, it would likely be as normal for these soon-to-be-teachers to teach on-line as in a classroom. To them, it is just another "place."

That said, it was noted last month at the National Association of State Directors of Teacher Education and Certification (NASDEC), less than 1% of pre-service teachers nationwide receive formal preparation to teach online. The US Dept. of Education just released its first guide to evaluating on-line learning in K-12 education[1] while the North American Council for Online Learning published its standards[2] earlier this year.

It may also be helpful to note that the state's current knowledge and skill requirements for teacher certification candidates include specific recognition of technology skills.

Standard 5.1.a states that: *"Teacher candidates positively impact student learning that is content driven. All students develop understanding and problem-solving expertise in the content area(s) using reading, written and oral communication, and technology."* You can see in this standard, technology is valued at the same level as reading, writing, and mathematics.

Standard 5.2.d is all about technology! It states: *"Teacher candidates positively impact student learning that is informed by technology. All students benefit from instruction that utilizes effective technologies and is designed to create technologically proficient learners."* The focus of this

standard seeks to direct teachers towards preparing their students to use technology.

While neither of these standards deals directly with online coursework, they do show that our candidates are focused broadly on using technology—including all network resources—for learning purposes. Furthermore, most of our candidates have taken an online or blended course. In the university setting today, few courses are taught without some inclusion of network resources. For example, it is not at all uncommon for any course to have the syllabus, the course schedule, topical discussions, file exchange opportunities, assignment protocol, and other elements of the course appear online. This critical background prepares our candidates with the basic information necessary to successfully teach an online course.

In the pages that follow are snapshots from a dozen WACTE members that annually recommend 2,000+ teaching candidates (roughly 60% of the total) for certification[3].

And we ask you to remember the "history" and outlook of college students today. As the Beloit College "Mindset" list notes for those who just finished their freshman year[4]:
• They were born the year Harvard Law Review Editor Barack Obama announced he might run for office some day.
• U2 has always been more than a spy plane.
• Thanks to MySpace and Facebook, autobiography can happen in real time. And
• Virtual reality has always been available when the real thing failed.

Even for those students graduating in the coming year:
• They have likely never played Pac Man, and have never heard of "Pong."
• They may have fallen asleep playing with their Gameboys in the crib.
• Bill Gates has always been worth at least a billion dollars. And
• Digital cameras have always existed.

If you need further information, please feel free to contact me. If the committee is interested in delving deeper into the subject, we would be happy to arrange a presentation to the committee

Thank you.

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Teaching on-line
Prepared for the Senate Committee on Early Learning & K-12 Education

Washington State University

Recommending 437 teachers for certification annually

Within the Technology courses offered to our teacher education students (T&L 445 for elementary majors, T&L 466 for secondary majors, and T&L 517 for masters students), I teach a unit on distance education that addresses a variety of issues related to online learning in K-12 settings. Within this unit, we explore the online offerings within the State of Washington, currently the K-8 virtual academy (http://www.wava.org), and the virtual high school Insight School (http://www.go2ischool.net) and within other states as well. I will be adding the new iQ Washington Academy (http://www.iqacademywa.org) which is offering grades 7-12 online starting in August. This is the newest online school in the state of Washington.
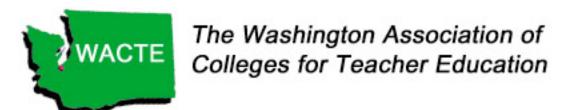
In this distance education unit, we explore the online course offerings and look at the curriculum offered, the instructional strategies used, and the types of student-teacher, student-student, and student-content interactions that might occur within an online course.

We also discuss the technology literacy skills teachers and students would need to have to be successful in an online class environment. While I do not have a way to give students access to an online course management system so that I can train them on how to use that online teaching system, I do give the students the opportunity to practice the skills needed to teach within an online environment using several technologies. These web-based technologies give the students the experiences of interacting with others in an online environment and within a technology-enhanced classroom.

These skills would include managing a classroom website, wiki, and/or blog sites complete with lessons and classroom activities, as well as how to use a variety of digital technologies and formats to communicate relevant classroom messages, ideas, and information effectively to students, parents and the community. With all of the technologies that we explore in these courses, we have a dual focus. First is on how to use the technology from a teaching perspective and how technology can help teachers prepare lessons, manage the information flow, and facilitate a lesson. The second is from the perspective of how students would use the technologies and how to design a lesson/unit that supports student learning utilizing the technology.

Giving our teacher education students these experiences of designing and using a variety of online technologies prepares them to effectively select appropriate technologies to use within their classrooms and support their teaching activities. But more importantly, these experiences help our students explore how they can engage their future students by utilizing these digital tools and resources to promote critical thinking skills, support student learning, deepen student reflections and understandings of the material, and how K-12 students could use technology to demonstrate that they have met the learning objectives of a lesson.

One of the online Instructional Design certificate courses covers online teaching issues and does take students through how to teach within the Blackboard course management system, but this is only offered to those seeking the ID Certificate and has not been marketed to K-12 teachers. This course would need to be updated if it were to be offered to the K-12 market and include more content related to K-12 teaching and learning issues.

- Guy Westhoff,
  Assistant Professor
  Department of Teaching & Learning
  Washington State University

University of Washington – Seattle

Recommending 160 teachers for certification annually

Preparing our teacher education candidates to be able to use technology to support student learning is a priority of our program. To that end, we have attempted to put the infrastructure and services in place that allow teacher education students access to current technology. In particular we have attempted to:

- Invest in state of the art computing facilities (lab and classrooms) – including media server, choice of operating systems, document cameras, web-based tools & interactive white boards
- Develop a set of SMART Tech sessions for students – including using web-based learning technologies and media capture for reflection on making student work visible
- Open and encouraged the use of a /SMART Conference Room /that can serve as a demonstration space for the latest uses of technology.
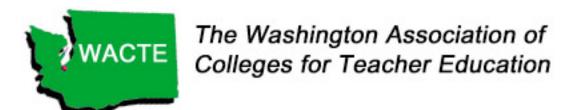
We have as general objectives for the students in our program, the following broad goals related to the use of technology and on-line instruction:

- recognize productive ways that certain types of school information can be placed on-line (assignments, helpful information resources, special dates, examples of exemplary student work, rubrics, etc.)
- understand how Web resources can be used to enhance meaningful instruction (illustrative animations, information resources, images, sites for capturing first hand data, etc.)

In addition, students in our program take up to three courses in an on-line format that bridges virtual environments with the practice-based worlds of teaching. This experience, we believe, will help our graduates create such environments in their future teaching.

- Patricia A. Wasley
  Dean and Professor
  University of Washington
  College of Education

Eastern Washington University

Recommending 377 teachers for certification annually

At EWU we stress the importance of preparing technologically proficient educators so that when they enter the ranks of being an in-service teacher they are prepared for teaching using technology.   This is very different from preparing pre-service teachers to offer online courses. Given the current requirements at the state level, adding this requirement for future teachers would be extremely difficult if we are promising a quality education in a TIMELY manner.

- Alan Coelho, Dean
  Eastern Washington University

Seattle Pacific University

Recommending 128 teachers for certification annually

Our entire teacher education program focuses on readily transferable principles of learning theory, e.g. approach things developmentally, maximize student engagement with the materials/concepts, clarity of expectation, strong assessment, etc. These readily transferable skills are useful in any kind of learning environment.

Furthermore, our candidates are required to show technology skills. They commonly use network resources to access course syllabi, assignment instructions, to participate in course discussions, to post artifacts to online portfolios, to work in and with online groups, to hand in assignments, to receive feedback on assignments, to develop and share their own teaching materials, to access information for various assignment, etc. It is a rare course at SPU that doesn't have an online component.

What that means is that our candidates have broad experience in online learning environments when they graduate. This broad experience would prepare them to teach either in a partial or fully online setting. What we do not do is prepare directly for an online setting.

- Frank Kline
  Interim Dean, School of Education
  Seattle Pacific University

Whitworth University

Recommending 126 teachers for certification annually

We have not included on-line teaching in our curriculum for teacher preparation. At the present time, we have a difficult time getting in all of the current state requirements and, once again will be adding more to programs--math to meet the new elementary endorsement. In order to do an

effective job of preparing students for on-line instruction at the pre-service level, we would have to add course work and practicum experiences. If there is a growing sentiment to add this as a requirement then I encourage legislators consider what can be taken away. There's only so much room in a given four year or one year post-baccalaureate program to meet all requirements and speaking for Whitworth, we're at that limit. I suspect other institutions are in the same situation.

Having made that point, I actually think that this is an important issue, especially given the expansion of on-line offerings in rural areas and agree that it should be considered, perhaps at the in-service level.

- Dennis Sterner, Dean
  Whitworth University

Gonzaga University

Recommending 105 teachers for certification annually

"At Gonzaga we have competencies for pre-service candidates in technology, but not for teaching on-line. It seems to me that this type preparation and delivery would be problematic for P-12 systems other than in an alternative or home-school environment."

- Jon D. Sunderland, Ph.D.
  Dean, School of Education
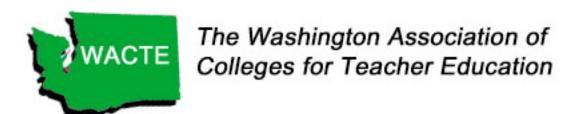 Gonzaga University

University of Puget Sound

Recommending 59 teachers for certification annually

In our MAT program we prepare our students to possess the technological skill and judgment to develop programs or on-line courses in context of the district needs and demands—from tutorials to formal courses. The preparation occurs in courses in content and pedagogy (with technology as part of the pedagogical knowledge) which comprises the true preparation for whatever the district context demands. The critical question underlying the issue of teacher preparation for on-line instruction is "what kinds of technological preparation, in the study of learning and teaching, prepare our candidates to meet these new curriculum venues?

- Christine Kline, Dean,
  Graduate School of Education
  University of Puget Sound

City University

Recommending 346 teachers for certification annually

At City University, we don't prepare teachers for online teaching. Online teaching is not part of the charge from the state. We do prepare university instructors to teach university classes online, but have not made that a part of our initial teacher preparation programs. Classes are supported with Blackboard and other current technology tools used in the public schools. Our students work with online technologies to receive their instruction, but are not taught how to present this to students of their own. We have been particularly noted for the quality of our online tutorials and library resources for candidates in our classes and we also hope that the research capabilities we are developing carry over to candidate's work in K-12 classrooms.

A year ago we did some preliminary exploration and program planning toward offering a certificate in online teaching for K-12 educators, but have not formalized a proposal to the University at this time. If we proceed with that in the future, it would most likely be the kind of program that this survey is attempting to identify.

- Judy Hinrichs
  Interim Dean
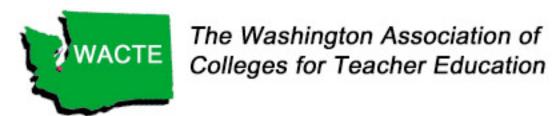 CityUniversity of Seattle

Walla Walla University

Recommending 40 teachers for certification annually

At Walla Walla, we do not offer any formal preparation for future teachers to teach online.
 Perhaps we can say that our candidates learn some of that indirectly. For example, almost anyone would have taken an online course or courses before they complete their requirements.
 This would provide some procedural foundation for the time they might be doing the same with, say, secondary students. Also, we make a concerted effort to make them familiar with online technology and use online course management software as support for many traditionally taught courses.

- Julian Melgosa, PhD, Dean
  School of Education & Psychology
  Walla Walla University

Pacific Lutheran University

Recommending 198 teachers for certification annually

PLU does not specifically train teachers to teach on-line courses. However, we do provide the following technology coursework and support for our teacher candidates:

* All candidates must successfully complete a series of technology modules which cover the use of teacher utilities, including word processing, presentation software, and content & internet based applications (i.e., blogs, discussion boards, grade management, and web quests);

* All of our courses utilize Sakai, a web based course support system. Candidates are expected to be frequent visitors to their course sites, which include discussion space, grade management, announcements, and course resources (e.g., pdf documents to read, course assignment rubrics, etc.). Through this site, teacher candidates are exposed to how courses can be enhanced through technology;

* All candidates are required to submit an electronic portfolio to LiveText, a web-based data management system.

Although we do not expressly prepare our candidates for on-line teaching, we do believe they would have the fundamentals to assume this type of role if required to do so.

- Mike Hillis
  Director of Graduate Studies
  Pacific Lutheran University
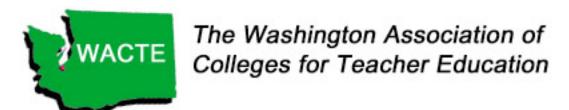
St. Martin's University

Recommending 100 teachers for certification annually

St. Martin's University requires a 3 semester credit course ("Technology in the Classroom") for all teacher certification candidates The course includes various online learning/teaching activities as part of the learning experiences provided to the candidates enrolled in the course:

This last spring, for example, students were involved in a Skype (skype.com) conference call. The instructor also provided screen-casting of numerous lessons as renewable resources for students. (Screen-casting is the technology of recording a computer screen while simultaneously recording a voice as narration of the lesson. Two great screen-casting resources are: http://en.wikipedia.org/wiki/Screencast and http://mashable.com/2008/02/21/screencasting-video-tutorials/). The instructor then posted the resulting video clip on his blogs, http://learningmastery.wordpress.com/, for further study and review.

Activities in other courses include student assignments with synchronous and asynchronous discussions/chat-rooms using Moodle; electronic posting of assignments, projects, portfolios,

Web-quests and other electronic or web-based projects. Students then incorporate these knowledge/skills and products into lesson plans for their internships and future classrooms.

- Joyce Westgard
  Dean, College of Education
  St. Martin's University

Seattle University

Recommending 91 teachers for certification annually

National and state standards for knowledge and skills for teachers, including the National Board for Professional Teaching Standards, do not include a standard or an indicator that a beginning or experienced teacher should be prepared to teach an on-line course. However, all three of our teacher professional preparation programs both use and teach teachers how to use on-line tools to support their teaching and to support the learning of their classroom students.

Pre-Service Master's In Teaching Program

The following are examples of how students in Seattle University's Master in Teaching program area being prepared to teach in an on-line environment.

1. **Using Wikis to Support Learning**
   A class wikispace is developed to support a collaborative class project. The use of the wikispace to promote collaboration between geographically separate groups of learners is considered.

2. **Writing and Publishing Web Pages**
   Description of student assignment: in teams of two find a useful Web site to create learning experiences that work for the wide range of students in public schools. Create a brief Web page summarizing the site. This page, along with the others assembled by your classmates, will be incorporated into a Web site called the MIT Multicultural Resource Guide and will be available to you and your teaching colleagues around the world via the MIT Web page.
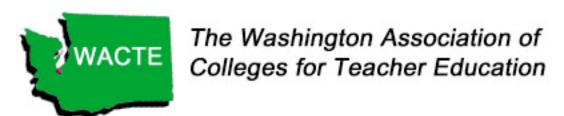
3. **Communication/Collaboration-based Web sites**
   Description of student assignment: a) locate and investigate a Web site that fosters communication between students, teachers, or classes; b) create a Web page that describes the site and how you might use it in a classroom (specify an approximate grade level.), gives the URL, and contains a link to the site; and c) link this page to the button labeled "Communication" on your Web-based portfolio.

4. **Researching on the Web**
   Students are taught basics as well as more advanced techniques for searching the Web and for evaluating the legitimacy and authority of the sites they locate. The use of anti-

plagiarism utilities (e.g., TurnItIn.com) is also considered in light of the possibilities for inappropriate use of the content available on the Web.

5. **Video Conferencing**
   Students are exposed to the use of basic videoconferencing software such as iChat and to the use of Web cams as a tool for capturing video for asynchronous distribution.

6. **Producing Digital Content for the Web**
   Description of student assignment: create a multimedia presentation that can be used to introduce a unit or lesson, generating emotional and cognitive commitment in your students.

7. **Podcasting/Vodcasting**
   Students learn what a podcast is, what a vodcast (video podcast) is, and how they may be used to support learning. The emphasis is on communication to support the construction of conceptual understanding. Students produce their own simple podcast and vodcast files.

8. **ANGEL – Course Management System**
   The use of this course management system (CMS) is modeled throughout the program. Students become familiar with the use of this CMS to grant Web-based access to digital course materials, to collect and return assignments and as a way to keep student apprised of their grades. Angel is also extensively used to support asynchronous discussions through the Web-based discussion forum feature.
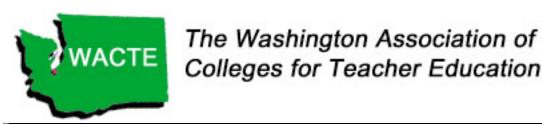
Curriculum and Instruction Graduate Program for Experienced Teacher

The two primary on-line tools that are both modeled and required of students in the Curriculum and instruction graduate degree program are 1) using the web for research and 2) using ANGEL (a web-based instructional management program) to interact with the class instructor and other students in a class (including upload and download of instructional materials and assignments, class dialogue and instructor feedback).

Professional Certification for Teachers

The state-defined standards and goals of the Professional Certification program for teachers do not include preparation of teachers to teach on-line, so we do not focus on that in the program. All of our Professional Certification teachers teach in public and private schools in the Puget Sound region and are not involved in distance education through their school districts or schools and the need for learning how to design and deliver distance learning has not been an issue raised by our partner school districts nor in meetings with our students' principals.

In addition to in-class modeling and instruction in the area of web-based instructional support tools, our College of Education has three resources that support students in learning to work in an on-line and high-tech environment. Students and faculty have access to the multi-state Northwest K-20 Educational Network serving diverse video and data needs. In addition, our College of Education has installed a new SMART Board in a classroom allowing faculty and students to learn and use a new technology that enables them to teach and interact both in local and long-distance settings. Finally, as a Jesuit university, our Seattle University College of Education and its students have access to the JesuitNET (Jesuit Distance Education Network) which delivers distance learning courses and programs offered by the 28 United States and 29 Latin American Jesuit College and Universities in English, Spanish and Portuguese. Currently there are 172 programs and 365 courses offered through JesuitNET

- Sue A. Schmitt
  Dean and Professor
  Seattle University
  College of Education

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Endnotes:

[1] http://www.ed.gov/admins/lead/academic/evalonline/evalonline.pdf

[2] http://www.nacol.org/nationalstandards/index.php#teaching

[3] Number of teaching candidates recommended for certification annually based on the most-recent published statistics from the Professional Educator Standards Board (2005). http://www.pesb.wa.gov/Publications/reports/2005/ComprehensiveAnalysis.pdf (p.37)

[4] http://www.beloit.edu/publicaffairs/mindset/index.php