

Developing An Online Course For Pre-Service Teachers

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Programmatic significance and courses affected

Our proposal is to develop a web-based learning environment to deliver an on-line course. The course, EDHD 5007: Technology for Teaching and Learning, is taught to all pre-service teachers. Approximately 350 students complete the course annually. The course is one of the most important elements of the pre-service teacher education program: All prospective teachers must take the course to learn how to integrate computer technology in K-12 classrooms. Developing the course will allow considerable flexibility for students as well as significant resource flexibility and revenue generation for the Department.

However, developing an on-line version of the course requires more than simply placing existing materials on-line. It is critical that we develop mechanisms to stimulate effective interaction among student and between students and the course instructors. Additionally, we plan to develop a resource to allow students to create on-line portfolios that will be used in the job-search process to demonstrate teaching and technology proficiency.

Learning outcomes

The project outcomes include:

- An online learning environment for delivering EdHD 5007. This environment would include diverse instructional modules and learning resources. Examples of the resources include digital learning videos, print-based tutorials, peer-to-peer and student-teacher discussion zones, as well as a facility to disseminate model- and student-generated projects.
- Online tools for students to develop multimedia teaching-portfolios. The purpose for the portfolios is for students to demonstrate their ability to integrate computer technologies into their teaching, rather than simply knowing how to use technology. It is envisaged that a portfolio will include projects and reflective essays for each technology that is learned.
- The ability to deliver the course to students at diverse locations including other University of Minnesota campuses (for example, we are currently unable to deliver to students at University of Minnesota Crookston)

Evaluation Plan

The quality and effectiveness of the online learning environment will be evaluated using quantitative and qualitative data through the following methodology.

- Participants will be surveyed to evaluate their learning experiences when using the online environment.
- Three focus groups (conducted before and after the online course, and after students have completed student teaching) will be used to determine the impact of the course. The analysis will represent a follow-up to a recent study by one of the PIs (Doering, Hughes, & Huffman, in press) that assessed student technology learning in EdHD 5007 when taught in a regular classroom environment.
- Students and instructors will evaluate the online environment before the course is delivered online. These evaluators will be videotaped as they interact with the environment and interviewed after working within the environment. The evaluators' comments will be used to make final changes prior to delivering the course "live."

Timeline

March 2003 – August 2003

- Development of the online learning environment.

August 2003 – January 2004

- Evaluation of the online environment by colleagues and students who are not enrolled in the course, but have volunteered and/or been selected as evaluators of the project.
- Revisions of the course will be made based on evaluator input.

January 2004 – July 2004

- Delivery of the course to one section of EdHD 5007 students.
- Summative evaluation will be collected and acted upon in the learning environment revisions.

July, 2004 – August, 2004

- Delivery of the course to an additional section of EdHD 5007 students.
- Revisions will be made according to summative evaluations during the delivery of the online modules.

August, 2004 – February, 2005

- Delivery of the course to an additional section of EdHD 5007 students.
- Final revisions will be made to the learning environment based on summative evaluations.

Budget

Item	Description	Funded by TEL	Funded by Department
Instructor (10% for 2 semesters)	The instructor (Doering) will work on the development of the online environment.		\$4,500
Multimedia computer	Used by TA to assist in the development of the online course		\$2,000
Software and peripherals	Snapz Pro, WebCam, and mic for development of video tutorials		\$250
25% technical support person provided by Dept.			\$5,000
25% Graduate TA for 2 semesters	Graduate student to support the project: help design and develop the online environment, online tutorials and instructional videos	\$9,610	
Evaluator Fees	Used to pay individual to evaluate the learning environment.	\$350	
Mentorship Support	Mentorship Fee Support per the grant guidelines	\$1000	
Total		\$11,000	\$11,750

Roles and responsibilities

The project will be collaboration between Deborah Dillon, Chair, Department of Curriculum and Instruction, and Aaron Doering. Funds from the TEL grant will be used to hire a graduate assistant who will work closely with Aaron Doering on development of the on-line course.

Discussion of collegiate and departmental support

As Department Chair, I have assigned this project as my primary emphasis for this round of TEL grants. The College of Education and Human Development lists technology and on-line learning as one of four areas in need of special attention and additional investments. As such, this project is central to the to the College's core initiatives. The Department of Curriculum and Instruction will contribute 25% time of a technical support position (approximately \$5,000) for two semesters and 10% of one Aaron Doering's time to the project for each semester (approximately \$4,500). We will also provide computer hardware and software to support the project (approximately \$2,250).

MENTORSHIP PHASE

It is anticipated that the project will have a significant impact on the teaching of EDHD 5007 and will involve the mentorship of faculty responsible for teaching the course on-line. Completion of the project will allow students the option of taking the course on-line, thereby enhancing access and flexibility for students, and revenue for the department. We anticipate the project will serve as a model for the development of other on-line courses for the Department.

Reference

Doering, A., Hughes, J., and Huffman, D. (In Press) Preservice Teachers: Are we Thinking with Technology? Journal of Computing in Teacher Education.