A TECHNOLOGY-RICH TEACHER PREPARATION PROGRAM

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INTRODUCTION

One of the goals of the National Educational Technology Plan (U.S. Department of Education, 2000) stipulates that "all teachers will use technology effectively to help students achieve academic standards." The report states, however, that most teachers have not been prepared to use technology effectively, that they are in essence… "out of step with what is needed to prepare the nation's students for the challenges they will face in the future" (p. 6).

The report goes on to say that "new teachers entering the profession are still not being adequately prepared to teach with technology" (p. 14), and calls for improvements in teacher preparation programs to ensure that our nation's new teachers are able to provide students with "21st-century literacy" skills. Teacher preparation programs are charged with the responsibility of preparing teachers who have the knowledge and skills to use technology for effective teaching, learning, and assessment (Secretary's Conference on Educational Technology, 2000).

To facilitate the training of new teachers in technology, the U.S. Department of Education created the Preparing Tomorrow's Teachers to Use Technology (PT3) program and provided funding for innovative technology-rich teacher preparation programs, such as the one developed jointly with Boise State University and a consortium of rural Idaho School Districts. This PT3 project, titled Building Bridges with Technology, is dedicated to the training of teachers to use technology effectively in the teaching/learning process

BUILDING BRIDGES WITH TECHNOLOGY

The overall purpose of the Building Bridges with Technology project is to assist in the implementation of an innovative teacher education program using technology as the integral component in training, collaboration, and support. The project features a model teacher education program rich in fieldwork and technology experiences. The foundation of the program is based on research identifying best practices regarding field experiences and the infusion of technology into the teaching/learning experiences of prospective teachers.

Specifically, the goals and objectives for this teacher education program are as follows:

1. *Preservice teachers will be technology proficient and proactive in their use of technology for teaching and learning by the end of their teacher training program.*

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This is accomplished through technology training in the college environment as well as through the utilization of a collaborative network of technology-proficient, master teachers at rural locations. These master teachers, Who have already been trained by Boise State University Technology Outreach Program personnel, provide guidance and expertise in the use of technology for teaching and learning. One or more structured fieldwork placements are made for preservice teachers in the classroom of a trained master teacher in technology integration. This is accomplished with the combination of on-site experiences in rural districts, along with video experiences.

2. *All faculty involved in teaching preservice education classes will be proficient in using technology to improve teaching and learning and model the use of technology in preservice education courses.*

Attainment of this goal is realized through several avenues. First, technology training and support is provided to the faculty in the College of Education and in the associated Boise State University content area departments. Additionally, technology-rich experiences are provided for university faculty in which faculty are able to observe and to collaborate with master teachers actually using technology in their K-12 classrooms. Trained university faculty model technology integration throughout the preservice experience in technology-rich computer classrooms; additionally, they provide opportunities for their students to both observe and teach using technology throughout their teacher education programs.

3. *College of Education faculty, as well as faculty across the associated Boise State University content areas, will become proactive in their use of technology through exposure to best practices and research literature relating to technology use.*

Faculty technology expertise is strengthened through participation in NCCE, ISTE, ICTE and other technology-related organizations. Faculty attend and present at conferences as well as have access to technology research publications.

4. *Through the use of technology, the teacher education program will be able to provide flexibility in offering teacher education courses online and be able to expand services to rural area districts.*

In order to accommodate instruction at the rural sites of the consortium, a number of education courses are offered and delivered through a variety of Internet, audio and video media. In this way, students are able to complete course instruction as well as participate in their rural field experiences. The rural members of the consortium are able to use these intern students to maximize the use of technology in the K-12 classrooms and recruit them as well.

5. *The implementation of a technology-rich teacher education program will result in faculty and beginning teachers who are knowledgeable in the use of technology as a means of enhancing teaching and learning and confident in their ability to integrate it.*

The end result of this project features technology-proficient faculty as well as beginning teachers entering their first year of K-12 teaching. This goal of the project provides for an overall evaluation of the effect of a technology-rich teacher education program. Data is being collected and analyzed concerning faculty and preservice teacher attitudes toward technology, the benefits and weaknesses of utilizing technology for specific teaching activities, the extent to which technology can/should be integrated into teacher education courses, strengths and weaknesses of offering online methods courses, and the best uses of technology.

6. *Boise State faculty will be active in disseminating, both statewide and nationally, the successful practices and lessons learned from the project.*

An integral component of this project is the dissemination of results to ensure that successful practices and lessons learned from the project are modeled and employed in other preservice education programs. Dissemination efforts are extensive and include presentations at the state, regional and national levels. A project website provides a rich variety of information about technology and technology-supported lessons. Compact discs have been developed for multiple grade levels and discipline areas that feature master technology teachers effectively using technology as a teaching and learning tool. These CDs will be available for distribution around the country.

CONCLUSION

Although the Building Bridges with Technology project is only in its second year, the effect on teacher preparation at Boise State University is pronounced. More than 75% of the College of Education faculty and many of the Arts and Sciences faculty have received technology training and are integrating it into instruction. Students are benefiting from technology-rich field experiences and the rural schools have opportunities to attract new teachers.

REFERENCES

U.S. Department of Education (2000). E-Learning: *Putting a world – class education at the fingertips of all children* [Online]. Available: http://www.ed.gov/Technology/elearning/index.htm

U.S. Department of Education (2000). *Measuring impacts and shaping the future*. The Secretary's Conference on Educational Technology [Online]. Available: http://www.ed.gov/Technology/techconf/2000/report.htm