

## **Preparing Preservice Teachers to Use Technology: Program Experiences and the Research**

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Teacher preparation institutions all over the world are focused on providing experiences for preservice teachers so they will learn to use technology and then meaningfully integrate those technologies into the learning process. Because of its complexity, this task has been quite challenging for most teacher education programs. It challenges all teacher educators involved in preparing preservice teachers to think critically about the role of technology throughout the entire teacher education curriculum and the quality of field experiences the undergraduate students have in K12 schools. To adequately prepare preservice teachers to use technology in their own classrooms, teacher education programs must develop comprehensive models for technology integration that include meaningful uses of technology to improve and renew the teacher education and K12 curriculum.

Iowa State University has designed a technology-infused teacher education model. The goal of this comprehensive model is to prepare cohort groups of preservice teachers who are ready for leadership roles and who have had technology-enriched course and fieldwork throughout their teacher education program. This model's design is based upon the successful Project Opportunity cohort model developed previously at Iowa State University and uses John Goodlad's model of simultaneous renewal as a guiding theoretical framework (Goodlad, 1994).

In this teacher preparation model, a cohort of preservice teachers begin taking all of their professional education and methodology courses as a group starting their sophomore year. In addition, a three-year relationship with a school district is established, so students can participate in field experience opportunities in classrooms each semester. It is anticipated that these students will accumulate over 250 hours of field experience in schools prior to their student teaching experience. This model also provides extensive professional development opportunities for inservice teachers at the partner school sites. All facets of the model are designed to improve the quality and increase the quantity of field experience opportunities for students in the teacher education program.

A research agenda has been designed to examine the impact this comprehensive model has on the preparation of preservice teachers at Iowa State University. The cohort students have completed two surveys, Survey of the Use and Integration of Computer-Related Technology (Schmidt, 1995) and Cultural Diversity Awareness Inventory (Henry, 1991; Phillips, 2000), to provide baseline data in these areas. Additional data are being collected through focus group interviews, journals, and classroom observations. Results to date will be shared.

In summary, this technology-infused teacher education model addresses the challenge of helping preservice and inservice teachers define and implement technology applications that will expand and enhance curriculum in K-12 schools and will model comprehensive uses of technology to facilitate teacher education renewal.

### References

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