

COLLABORATIVE TECHNOLOGY-RICH FIELD EXPERIENCES

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INTRODUCTION

A number of factors came together three years ago to influence preservice teacher education at Boise State University. First, an existing consortium of Idaho School Districts and Boise State University, dedicated to the training of teachers to use technology effectively in the teaching/learning process, was enhanced by a PT3 grant, one purpose of which was to extend the technology training from inservice teachers to preservice teachers. Second, a renewal of the teacher certification program focused on enhancing field experiences for both elementary and secondary teacher certification candidates. Finally, weaknesses in the existing technology education program were identified and solutions proposed through the PT3 grant. Among these weaknesses was the lack of fieldwork experience for most pre-service teachers.

METHODS

The plan was developed wherein rural school districts would partner with Boise State University preservice teachers enrolled in two courses relevant to technology integration in teaching and learning: the three-credit Educational Technology, Classroom Applications, and the one-credit Field Work class. Preservice teachers would be screened for selection through an interview and application process which would also give them an opportunity to state a preference for the school district in which they wanted to work. Through the PT3 grant, preservice teachers selected for the project would receive a scholarship, travel expenses and course credit if they fulfilled the Field Work course requirements. The requirements included: a) making a minimum of three trips to the classroom of the assigned K-12 master teacher, observing technology supported lessons and collecting technology information. Preservice teachers were to spend approximately 10 hours observing or assisting in technology supported lessons and approximately 10 hours preparing and presenting projects and observations to their Field Work class for a total of 20 hours; b) participating in technology-supported lessons in the classroom of the assigned master teacher. c) arranging time with the Field Work instructor to report to the Field Work class about their field experiences; d) choosing and preparing two of the projects listed on the Field Work syllabus by the end of the semester; e) arranging time with the Field Work instructor to share their completed projects.

Preservice teachers were to interview their master teacher using a prepared set of interview questions. Those questions touched on course curriculum and the fit of the project students were working on with the curriculum, equipment being used

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for the project, and adjustments, if any, made to teaching style to make technology an integral part of the classroom.

RESULTS AND DISCUSSION

These results are for one semester of the program, the first of its existence. During this time, eight preservice teachers were engaged in the Field Work class and experience. Five of the preservice teachers were in elementary school classrooms and three were in secondary school classrooms (N=8). At the conclusion of the semester, they were asked to complete two reflective evaluations, a quantitative one indicating ways in which they observed the master teacher using technology in the classroom, and a qualitative one in which they responded to questions asked about their experience. For the quantitative reflection, the categories of master teacher (N=8) use of technology were as follows: 100% used technology to organize and store information; 88% used technology to collect data and perform measurements, to plan, draft, proofread, revise, and/or publish written text, to create graphics or visual of non-data products, and to gather information from a variety of sources; 75% used technology to manipulate/analyze/interpret data, to communicate information, to create visual presentations, to support individualized learning, and to facilitate understanding of a concept; 63% used technology to create visual displays of data/information, to create models or simulations, to remediate basic skills, and to deliver instruction; 50% used technology to perform calculations, and to communicate with others, and 13% used technology to compensate for a disability or limitation. Though the eight categories surveyed do not represent all the possible uses of technology integration in an elementary or secondary classroom, they do represent more than the preservice teachers typically see in a college classroom, thereby greatly enriching their preservice experience, and planting the seeds for their own use of successful technology integration into their future classrooms. .

In the qualitative survey results, growth was noted in areas of preservice teacher understanding of the role of technology integration in the classroom. The first question asked of the preservice teachers was “Which technology supported lessons do you feel were most effective? Why?” Responses included: “The spreadsheet they made with information they gathered about the Olympics and the brochure they made with Publisher. I feel they were most effective because they were the projects the children were most excited about. Their success motivates them to do more.” Another preservice teacher responded: “...a research project on wolves. My master teacher created a PowerPoint presentation that the students had to go through and get information. They had many worksheets, etc., to get information from the computer and finalized it with a research paper. It was very effective.”

Another question asked of the preservice teachers was: “In your observations, what were the most effective strategies for managing the classroom during the technology-supported lessons? Tell why you feel they were effective.”

One student responded: “ Bottom line -- my master teacher had her students very well trained. They rarely ever misbehaved and always used quiet voices, if any at all. When they did get loud, the teacher would make them return to their seats and do assignments they would rather not be doing so they usually behaved.” A second student responded: “That all students understood that ‘their time’ was coming and that each person would have equal opportunity to use the computer. In addition, all students were busy.”

A third question posed to the preservice teachers was: “What did you learn about teaching and learning with technology as a result of your observations?” One preservice teacher responded: “That the computer lab where all students have hands on opportunity is a valuable tool to use in teaching/integrating technology, if the lab teacher is competent and/or the classroom teacher is involved in what goes on.” A second preservice teacher wrote: “That the two can be integrated successfully. That my uneasiness with computers should not let me hinder that curiosity.”

A final question had to do with the strengths of the field work experience. One preservice teacher answered: “The strengths were actually being able to have actual classroom experience. This was the most valuable thing. Also it was neat to see examples of how to integrate technology into the classroom. Another preservice teacher wrote: “I felt that the experience made my class (Educational Technology - Classroom Applications) more relevant to my job as a teacher... the opportunity to do projects and interact with a real classroom.” A third preservice teacher wrote: “I am so full of ideas for how to use technology as a teacher. Thank you!” And finally, a preservice teacher responded: “The strengths of the field work experience are the contacts I have in the education field. I now know many people I can contact with questions or for various other reasons. The teaching style used with technology was also very helpful.”

The preservice teachers involved in the Field Work class developed media presentations of their work, sharing the field experience with those class members not involved in the project. They were able to bring the student perspective and experience to their peers in a way not done before in the Educational Technology - Classroom Integration class.

The Boise State University faculty and the school district faculty involved in this field work project noted that their goals had been met as a result of the quantitative and qualitative reflections and interviews of the preservice teachers. These goals included: preservice teachers experiencing technology integration in a real time setting, K-12 teachers and students having an opportunity to collaborate with the college students, other preservice teachers not directly involved in field work being able to share the experience through presentations of the work accomplished by the field work students, and the rural school districts had access to future teachers whom they could consider recruiting.