A Framework for Integrating Technology into Teacher Preparation Programs

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The lack of highly qualified teachers for urban schools continues to be a well acknowledged problem nationwide. The educational needs of children and youth, and particularly for those who attend the nation's urban schools, can best be met by assuring that each student, no matter what school he or she attends, has a highly qualified, competent, and caring teacher (National Commission on Teaching and America’s Future, 1996). Faculty at the University of Wisconsin-Milwaukee (UWM) define highly qualified teachers as those who (1) are deeply knowledgeable in the content areas they are to teach, (2) possess and demonstrate a high degree of pedagogical content knowledge, (3) engage in culturally relevant pedagogy to foster high levels of achievement for all learners and to bridge the discrepancy between primarily majority teachers and primarily minority students, and (4) embed technology across all aspects of their teaching as a central means of creating active, engaging, and challenging learning communities that enable their students to meet high standards of achievement. Teachers who possess these four qualities have the potential to close the perennial gap in achievement between students in urban schools--who typically are members of minority, and often lower socioeconomic, groups--and their more advantaged peers.

But if teachers in urban schools are to use technology to close the achievement gap, they must draw on technology to transform traditional teaching--teaching that to date has clearly left students in urban school systems like the Milwaukee Public Schools (MPS) the least well served. Technology holds unique potential for assisting teachers in moving away from traditional, teacher-centered instruction to highly engaging, challenging, student-centered learning environments. To reach this level of technology use, however, new and experienced teachers alike will require sustained professional development to acquire a vision of what is possible through the integration of technology-rich educational approaches--opportunities that were not in place prior to the receipt of a PT3 Implementation grant.

It is our belief that to be skilled in appropriate technology use, students must learn about technology through both explicit instruction via technology courses and through more integrated means within content area courses. As part of the work to integrate technology into our program, a framework for technology was developed. The framework was developed to help students consider their roles regarding technology (e.g., promoter of ethical practice, troubleshooter), how technology could be used to help them (e.g., teacher’s assistant, teacher’s tool) and how it could be used to promote learning (e.g., communicating or sharing information via various technologies) in their students. Using the ISTE standards and Collaborative Teacher Education Program for Urban Communities Core Values, the framework was constructed. The framework drove the revision of two required technology courses and stimulated the integration of technology projects in a number of content area courses.

This presentation will share information about the Collaborative program and the technology framework, as well as explain how coursework has shifted in both content and delivery. Examples of student and faculty projects will be shown.