Dynamic Faculty Development: Strengthening Collaboration and Technology Integration across Disciplines and Campuses

The International Society for Technology in Education (ISTE) (Kelly, 2002) asserts that pre-service teachers must complete a sequence of experiences that develop an in-depth understanding of how technology can be used as a tool in teaching and learning. In addition, teacher candidates must see technology modeled by faculty in their university classes and in field placements. However, research (Assessment, 1995; Fabry & Higgs, 1997) has found that most faculty lack the skills and knowledge to model technology use and/or teach their students how to effectively infuse technology into the learning environment. In addition, many teacher candidates begin their studies at local community colleges and then transfer to a larger university to finish their coursework (Shulock & Moore, 2005; Townsend et al., 2003). This reality, coupled with the realization that at least half the coursework students complete at the college level are taught by Arts and Sciences (A & S) faculty, points to the need for technology integration across disciplines and across campuses.

In order to facilitate this type of massive transition, faculty members must first catch a vision for the ways in which the incorporation of technologies can enhance and strengthen their teaching (Albion & Ertmer, 2002). These beliefs, coupled with a sense of self-efficacy, can encourage instructors to dedicate the time and energy required to revise their courses (Snider, 2002). These revisions result in increased modeling of technology integration strategies (Francis-Pelton et al., 2000) and the provision of opportunities for students to utilize various technologies to increase their learning (Vannatta & Beyerback, 2001). Strong support structures are necessary to accomplish this metamorphosis (Dusick, 1998), and supplemental grant funding is surely one method of providing resources to ensure success.

The project described herein was designed to foster collaboration and technology integration across campuses in the northwest region of a midwestern state, targeting A & S and education faculty within institutions. Supported by PT3 funds, the goals were to attract participants from regional campuses in the state and work together to learn more about using digital technologies in teaching that would impact courses and students. Specific objectives included identifying needs and interests related to educational technologies, providing support in meeting these, mentoring faculty as they developed and implemented new lesson plans that integrated technologies, and showcasing the accomplishments of these faculty members.

The Educational Technology Convergence Project (ETCP) proved to be a viable way for faculty to build relationships across academic disciplines and beyond their local campuses. The project also built an awareness in A & S faculties concerning the technology standards for teacher candidates and how modeling and integrating these technology standards could impact future teachers. Many
students transfer and travel to and from various campuses. By designing instructional environments that addressed state and national technology standards in all regional campuses, more cohesive educational experiences that prepare students to be exemplary teachers are provided.

Specific technologies that were used to support the collaborative environment included email listservs, a common web board, and a project website (URL deleted for review). These tools used frequently and systematically, fostered community building across the barriers of distance and disciplines. Digital images and digital video were also incorporated to document and publicize the work. The project, now in its second year, was recognized as such a success that the model is being implemented statewide this year.

Program Components
The ETCP began with an open invitation (sent via email and standard letter) to regional colleges and universities. Project directors openly recruited participants from all regional institutions, explaining from the beginning that participants were committing to several meetings throughout the year, as well as creating, implementing, and showcasing a lesson that integrated technology in an effective manner. These deliverables, specified clearly at the inception of the project, led to the recruitment of faculty ready to achieve. In addition, technology mentors were identified (self-selected) from each participating institution. Project directors met with the mentors (8) from all the institutions in September, and launched the project in October, with all participants in attendance.

Though meeting dates had been selected from the beginning, allowing participants to commit to those dates initially, the format and content of the meetings evolved, based on mentor and participant interests and needs. Using email lists, a web board (common online discussion board), and the project website, conversations developed that guided our meeting agendas. Based on the feedback from the mentors in September, the four-hour October gathering included an overview of the project, the deliverables expected (technology-rich lesson designed, taught and showcased in the spring), the incentives ($500 stipends), and the framework for lesson development (the NETS-T\textsuperscript{1}). The group of fifty enjoyed lunch together, and each campus team had a brief meeting with their mentor during this October session.

The conversations from the October meeting, and the cyber-dialogues that continued thereafter, pointed to the need for some hands-on technology experiences. Many faculty expressed the desire to incorporate various digital technologies into their undergraduate courses, but they were uncertain about what was available and what types of technologies would support their academic discipline. From this interest, the “Mini-Workshop” meeting was born. Participants generated a list of technologies, including the Tablet PC,

\footnote{National Educational Technology Standards for Teachers, ISTE}
SmartBoard, digital video, digital still cameras, handheld computers, online learning, and digital audio. At the November meeting, participants chose three of these technologies and spend 30 minutes with a mentor, learning about and using the particular device or strategy. The spirit of “let’s learn together” was contagious, and potential barriers of academic discipline or campus-vs.-campus rivalries dissipated.

After the November meeting, most participants begged the project directors to schedule another meeting, as they felt they had learned so much and were having such fun doing it! Though an additional regional meeting was not scheduled, the mentors worked with their faculty at their campuses over the next months, supporting their lesson development and implementation. The emails and web board remained in use, and updates, including pictures from the meetings and generated lesson plans, were constantly added to the project’s website. The mentors reported that their participants had developed wonderful lessons and their groups have had such meaningful conversations concerning teaching and learning.

The final meeting, at the end of the academic year, consisted of a showcase of lessons, in which each participant set up a poster display about their project and shared this with invited guests. Presidents, provosts, deans, and chairs from participating institutions were invited to attend this exhibition, and formal printed invitations were provided to all participants and mentors, for this purpose. Professional videographers recorded the event, and a DVD was created to document every lesson that was presented. Representatives from the state board of regents also attended. The audience was quite impressed with the work that the teams accomplished and the team was asked to assist in implementing the project across the state, for the next year.

**Program Objectives**
The ETCP sought to provide avenues for faculty to build relationships across academic disciplines and beyond their local campuses. The project also aimed to generate an awareness in A & S faculties concerning the technology standards for teacher candidates and how modeling and integrating these technology standards could impact future teachers. Many of our students transfer and travel to and from various campuses. By designing instructional environments that address state and national technology standards in all our campuses, we could provide students with more cohesive educational experiences that prepare them to be exemplary teachers. These objectives were certainly met, as evidenced by the lesson plans generated, the dialogues which flourished, and the mentorship and modeling that is still occurring across participating institutions.

**Program Duration**
The ETCP lasted one academic year, from August 2004-May 2005. However, an extension of the project is continuing into this next academic year, and reaching statewide. Four regions of the state will be using this model to encourage
collaboration and technology integration across colleges and universities by extending the mentorship process. The project extension is named the (name removed for review), as is documented at (URL removed for review).

**Program Sustainability**
While the funding for this project may not continue after this year, the collaboration and technology integration spurred by the project will go on. The relationships build within campus communities and across institutions of higher education continue to flourish. The communication systems offered via the Internet continue to provide a means for faculty members in teacher education and within the arts and sciences domain to share ideas, support and experiences. Further collaborations, including presentation opportunities and scholarly writing possibilities are being developed. Campus mentors are finding that they now have a local cohort of technology integrators that are models for other faculty, and the interest in supporting teacher education and effective use of technologies in the classroom is increasing.

**Program Outcomes**
As previously mentioned, the ETCP outcomes are numerous. Mentors and participants have built strong relationships with faculty members across their own campuses and across the region. These relationships provide them with encouragement and expertise relating to technology integration, support of the NETS-T, and the interest in teacher education. More than thirty technology-rich lessons have been developed and taught in undergraduate classrooms of the region. The DVD documenting this work has also been shared with other institutions across the state, and other regions are emulating this work. Specific technologies that were used to support this collaborative environment (email listservs, a common web board, and project website) are still in use. The ETCP has been the beginning of powerful synergism in our participating colleges and universities. We expect this synergy to continue.
References


