

# **The UVM/PT3 Student Mentor Project: Professional Development in Technology for Faculty and Students**

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**Abstract:** This paper describes the PT3 Student Mentor Project at the University of Vermont, an initiative of the Preparing Tomorrow's Teachers to Use Technology [PT<sup>3</sup>] Implementation Grant. The project matches the expertise of undergraduate, pre-service teachers with University faculty members and K-12 teachers to support professional development in information technology. The formation of faculty-mentor pairs in technology is gaining recognition within the College of Education and Social Services as an effective strategy to support faculty use and integration of technology while simultaneously solidifying the pre-service teacher's own perception and application of technology in teaching. Pre-service students benefit from this relationship by strengthening their own skills and developing greater self-confidence as a teacher who knows how and when to use technology.

## **Background**

The PT3 Student Mentor project had its early beginning long before the University of Vermont [UVM] was awarded a Preparing Tomorrow's Teachers to Use Technology [PT3] Implementation Grant. The precursor was a cooperative project between the University of Vermont and the Burlington School District called the Technology Intern Project [TIP]. TIP was developed in 1997. Its purpose was to help Burlington K-12 teachers learn about technology by placing pre-service teachers as technology interns in K-12 classrooms. These UVM students could earn between one to three independent study credits by participating in TIP. To be eligible for TIP, a student must have successfully completed a required course in technology called "Integrating Technology in the Elementary Classroom."

The TIP program was managed by the technology coordinator hired by the Burlington School District. Between twelve to fifteen students participated in TIP during its first year. It was very successful and ran for approximately three years until the coordinator left the district. Even though the TIP program ended, the concept of using undergraduate students to support faculty learning did not. Students continued to work on-campus with university faculty through the College's Technology for Teaching (TFT) lab, and the support that undergraduate students offered faculty was recognized as an effective strategy to teach faculty how to learn about and apply technology to their courses. When the College of Education and Social Services received the PT3 Implementation Grant in June, 2000, the PT3 grant team was anxious to revitalize the concept of using pre-service teachers as mentors to K-12 and university faculty.

## **Rationale**

The decision to devote PT3 funds on a student mentor project was supported for many reasons. Pre-service teachers need to be fully prepared to enter the classroom with the ability to effectively use and apply technology in their classrooms (NCATE 1997; Milken 1999; NETS-T 2000). Part of this preparation includes participation in higher education courses where professors model the use of technology in their courses and in their assessment of

students. Without these role models, pre-service teachers are less likely to use technology in their own teaching (Beisser 2000). Pre-service teachers also need opportunities to reinforce and apply technology throughout their professional growth. Because college students often have or acquire information technology skills through coursework, their knowledge can be tapped to support the professional development of college and K-12 faculty. Using undergraduate students to mentor college faculty is recognized as an effective strategy for encouraging faculty to integrate technology into their coursework. (Beisser 1997). Working with K-12 teachers in authentic classroom settings allows a pre-service teacher to see how technology is managed and being used by teachers in the field. Supporting the professional development of our off-campus teachers helps our College build capacity for expanded experiences where students see how technology is being used to support learning in classroom settings. The benefits to both our pre-service teachers and our faculty (both on- and off-campus) seemed clear.

## **Program Administration and Support**

The PT3 Student Mentor Project first began during the Spring semester of 2001. At that time, the program was administered by the PT3 professional development coordinator, and only several students were involved (serving both on-campus and in-service faculty). By Fall 2001 a part time Outreach Coordinator was hired to work with students working in K-12 schools and the PT3 Program Manager assumed responsibility to support students working with university faculty. In both cases, the coordinator acts as an advisor to the student and a liaison between the student and the faculty member. The two coordinators promote the project, recruit students and faculty members, establish project goals and objectives for the faculty-mentor pair, support students with technology needs, document and evaluate the project as a whole.

Since the project began, the number of students participating each semester as student mentors has grown to approximately twenty-two students. University faculty applications have increased from three to over twenty (20). K-12 teachers who work with a student mentor during a semester has grown from two to forty (40).

## **Using WebCT to Build Community**

One outgrowth of this project has been the development of an online web site (using WebCT software) to create a community space for students and supervisors. The site (available online at <http://webct.uvm.edu>; login: pt3guest1; password: dewey) contains information about the project, documents past and current projects, links to resources useful to mentors, and contains a bulletin board area that promotes discussion and dialog about each faculty-mentor project. This year, student mentors are required to contribute to the discussion board by entering two postings per week to document their work. One posting is a contribution to a community discussion board, whereas the other is a posting to either a Faculty or K-12 Journal in which the student describes the work accomplished during the week.

The goal of the WebCT site is to support the undergraduate students who participate in the project and enable them to envision the entire project instead of reflecting on only their individual contributions to the College. It allows students to ask questions and to learn about the challenges other mentors face.

## **Project Examples**

Examples of the work produced by faculty-mentor pairs may be found at the WebCT site noted above. A variety of projects exists: faculty web page development, interactive webquests used in higher education coursework, digital videos created to support concepts connected with classroom observations, examples of K-12 student work using technology, student presentations and reports, and K-12 student-produced web pages to support classroom instruction.

## **Faculty Response**

Faculty response to this project has been overwhelmingly positive. University faculty appreciate the

support and direct instruction that student mentors provide. This support not only teaches the faculty member new ways to use and apply technology but also creates a situation where the faculty member and mentor work as colleagues to discuss course content and teaching methodology. Undergraduate students in effect become peer reviewers of courses, and this feedback has enabled many professors to refine course assignments and presentations in ways that improve their courses. Faculty members are also more likely to undertake new applications of technology in their teaching knowing that they will receive the personal support of a student mentor.

In the K-12 setting, teachers appreciate the support that a student mentor provides. In many scenarios, student mentors enable a teacher to try new uses of technology with their students. In these placements, the student mentor often works directly with small groups of students, demonstrating how certain procedures are accomplished. This added support helps the classroom teacher manage the use of technology in the classroom and to prepare students to apply appropriate technology to solve problems and to express their learning more visually.

Faculty have noted that they often do not devote enough time to the student mentor to reap the full benefits the program offers. Given their busy schedules and work demands, faculty members may cancel meetings with mentors or ask the student mentor to perform the work rather than work together with the mentor to build their own skills. Most faculty members recognize that their own commitment to the project is as important as the student's commitment.

## **Student Response**

Student response to the PT3 Student Mentor Project is primarily favorable. Students appreciate the opportunity to work closely with a faculty member. This opportunity allows them to reinforce their own technology skills and, at the same time, learn about teaching from the faculty member they serve. Students gain self-confidence through these interactions and the expectation that they are the “experts.” Students appreciate the complexity of teaching and the time involved in created technology-enriched learning experiences. They receive an added benefit from this project in that they can document their work with the faculty member or K-12 teacher and use this experience in their resumes, professional portfolios, and future job applications.

The only negative response to this experience occurred when one student felt misplaced and did not have interest in the grade level assignment where she was working. Another negative response was reported by a student mentor who felt the K-12 teacher expected too much out of school preparation to take place given their initial agreement.

## **Sustainability and the Future**

The sustainability of the PT3 Student Mentor Project is now in question with the termination of the Preparing Tomorrow's Teachers to Use Technology grant funding from the U.S. Department of Education. We have been exploring new ways to use pre-service teachers to work with faculty in K-12 settings through other grant opportunities that are currently available through No Child Left Behind (NCLB) legislation. Recently, the College and a local school district submitted an application for 21<sup>st</sup> Century Community Learning Center grant funds to create after school learning programs. In this proposal, funds were included to employ pre-service teachers to assist classroom teachers with technology-related curriculum and activities. Another idea under development is to employ high school students to serve as mentors to K-12 teachers taking graduate-level courses related to technology integration. The Center for Teaching and Learning, a “learning commons” for University of Vermont faculty (<http://ctl.uvm.edu/>), has shown an interest in using the PT3 Student Mentor Project as a model to implement a technology fellows program to assist university faculty with technology related projects. This initiative would expand this project to any interested student or faculty within the University, but does not include an outreach to the K-12 community. If no new funding appears however, future student mentors may be funded through work-study funds (if the student qualifies for this form of financial aid) or by earning independent study credit hours. Either funding strategy is likely to reduce the number of students who will be able/interested in participating in this project. Regardless, it is still unclear whether or not supervision of these students will receive sustained funding from the College of Education and Social Services and who would be responsible for managing/administering this program in the future.

Even with a cloudy future, the realization that students can support faculty professional development is likely to endure within the College. Especially on-campus, faculty better understand the benefits to be gained from

faculty-mentor relationships. It is difficult to predict if this mentoring model will transfer to other, non-technological, applications, but this project has set the stage for faculty to acknowledge and endorse the benefits of intergenerational mentoring. Star (2000) notes that intergenerational mentoring relationships are beneficial because they “encourage collaboration, foster active learning, provide less authoritative structures, engage dialog, create communities of learners, advocate life long learning, and contribute to future professional development.” These attributes have all been evident in the PT3 Student Mentor Project and will hopefully continue to guide the College of Education and Social Services to create new strategies to support authentic learning experiences for both the faculty and its students.

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