



Welcome to T² – Teachers and Technology

Introduction – Who We Are and Why We're Here

The PT3 Initiative

The Preparing Tomorrow's Teachers to use Technology (PT3) program¹ was announced by the U.S. Department of Education in 1999 in response to a recognized need for technology-proficient educators. This program was aimed specifically at training future teachers in the use of technology for teaching and learning, and it awarded grants to education partnerships that proposed innovative projects for infusing technology into teacher education programs. Project T², Teachers and Technology, was awarded a PT3 grant² in 2000 for a project with the following vision:

The T² Vision

We see embracing our future teachers with a 21st century learning environment that models one we want them to create for their future students.

We see an environment that comprises:

- *a strong partnership with K-12 schools and colleges of arts and sciences*
- *teacher educators using technology to expand the walls of the classroom and enlarge conversations with the entire learning community*
- *teacher educators using technology as a tool for thinking, for exploring, for learning*

We see future teachers who can design and implement classroom curriculum that:

- *involves authentic problems, decisions, tasks – so that students are challenged to think critically and creatively,*
- *is based on national and state standards – so that students meet high standards of achievement,*
- *incorporates principles of universal design -- so that all students have access to a challenging curriculum based on high standards*

We see a community of learners -- teams of teacher education faculty, arts and sciences faculty, K-12 educators, parents, business personnel, services providers, and students -- working together to

- *learn cooperatively,*
- *solve problems collaboratively, and*
- *support one another respectfully.*

We see technology as a tool and a catalyst for making our vision a reality.

¹See PT3 Website at www.pt3.org

²PR#P342A000266. For further information about Project T², contact Dr. Judith Howard, T² Project Director, CB 2105, Elon University, Elon, NC 27244; 336-278-5885; judith.howard@elon.edu.

Project T² – Teachers and Technology

Three North Carolina institutions of higher education, Elon University, Barton College, and Wake Forest University, formed a partnership and teamed with associated school districts to formulate a project with the following goals:

- To prepare teacher candidates to develop technology-enhanced high-quality learning experiences
- To prepare teacher candidates to use principles of universal design in curriculum and instruction
- To build and sustain a technology-enabled community of practice

To meet these ambitious goals we outlined a number of equally ambitious activities. One of these activities was to sponsor a weeklong summer institute that brought together students (teacher candidates), teacher education faculty, arts and sciences faculty, and K-12 educators to work together on the development of high quality curriculum enhanced with appropriate technology.

Participants at the T² Institute took part in workshops on problem-based learning (PBL) and universal design for learning (UDL); they attended optional mini-sessions on a variety of software applications; and they worked in teams (Development Teams) to apply what they were learning to the development of units of study. Though one week was not an adequate amount of time to complete a curriculum unit, participants had the opportunity to generate problem-based ideas, to explore how technology might be used, to apply principles of universal design, and most importantly, to take advantage of the variety of expertise that comprised each Development Team.

High Quality Learning Experiences: T² Curriculum Units

At the heart of our curriculum efforts are two concepts: authentic learning and universal design. The strategy we selected to represent authentic learning is problem-based learning, simply because we believe that authentic learning *is* problem-based. We learn best when we want to, when we need to, when we are working on something of interest and importance to us. Our goal, then, has been to design realistic, intriguing scenarios that will immerse students in challenging situations rich in learning opportunities.

Our second belief is that challenging high-quality curriculum should be available to all students. Using principles of universal design for learning we have built in features that make our units equitable and flexible – i.e., accessible to a wide variety of learners. We have included strategies, content enhancements, and other techniques that make use of UDL intuitive for teachers and students.

Technology enhances both the authenticity of unit activities and the availability of universal design. Students can indeed learn like professionals in their PBL scenarios by

searching the Internet, using Web-based resources, and using software applications as professionals do. Technology gives access to materials and methods that would otherwise be inaccessible for students with disabilities. Screen readers can read aloud the information on a Web site; online dictionaries can look up and speak aloud words that may be unfamiliar, or translate words into another language for students who use English as a second language. Multimedia opens up a world of possibilities.

T² curriculum units, therefore, may be characterized as *problem-based, universally designed, and technology-enhanced*.³ They originated at the T² Summer Institute and represent the hard work of many dedicated educators. The kernels of ideas that were formulated by the educators at the institute have been revised and revamped and reformulated by a number of educators in the months since their inception. They have grown with each new idea. They truly represent the product of a community of learners.

³ Brief papers on each of these characteristics are available in the Professional Information Center of each unit.