2003 Grant Awards
for
Preparing Tomorrow’s Teachers To Use Technology (PT3)

P342A030147 University of Alaska-Fairbanks (AK)

This project was designed to support the instructional technology and academic needs of teacher interns in the Rural Educator Preparation Partnership (REPP) program, faculty supervisors, teachers, and secondary students in five professional development school districts in rural Alaska. Project staff will also support secondary students in the Future Teachers for Alaska organizations in the five high-need Alaska districts who are members of the consortia for this project. University faculty in English and mathematics, graduate students, and other mentors will provide training, professional development, and support for students, teacher interns, and K-12 teachers in the consortia. In addition, Alaska Native students from the university will serve as mentors to students in the five districts. The project will (1) improve the technology skills of REPP interns, faculty supervisors, teachers, and students in consortia schools; (2) involve university faculty who support the use of emerging technologies in the course delivery to REPP faculty, teacher interns, secondary students, and practicing teachers in the cooperating districts; and (3) encourage secondary level, Alaska Native and other students in rural Alaska schools to become effective K-12 teachers. These goals were developed in response to the specific needs in Alaska schools including the need to build a stable and effective teacher base for rural schools.

P342A030011 California State University-Long Beach Foundation (CA)

The Learning Equity And Reform Network (LEARN) project will prepare tomorrow’s teachers to use technology meaningfully to capture, assess, analyze and creatively use student performance, program, and teacher quality data to improve learning and achievement for traditionally underserved K-12 students. Collaborative work and professional development offerings of the LEARN project focus on the need to prepare teachers to work effectively with diverse students and families. Research/evidence-based, diversity responsive educational theories and practices will be meaningfully integrated with constructivist, research-based uses of learning technologies.
P342A030076   San Jose State University   (CA)

The California Model of Development (CAL-MOD) project seeks to provide an intensive technology integration training with an emphasis on project-based learning for collaborative learning teams comprised of master teachers, student teachers, and university faculty in order to improve the teacher induction process. Both master and student teachers will have the opportunity to learn new and emerging technologies in-depth and will produce and field-test project-based learning modules in the classroom. In the long-term, the project will produce a large cadre of highly technologically literate master teachers who will continue to induct pre-service teachers into the teaching profession for many years to come.

P342A030031   University of Colorado-Denver   (CO)

The Colorado Consortium for Preparing Tomorrow’s Teachers to Use Data (PTD) project proposes to ensure that newly prepared teachers across Colorado are proficient at using data and related technologies as part of their instructional practice. PTD will focus on developing the data-drive instructional practices of faculty members who prepare new teachers, facilitating cultural change within institutions to support this practice, and ensuring that every stage of teacher preparation, from initial courses through student teaching and into the classroom, will include data-driven instructional practice.
The Promise of Teacher Quality (PTQ) project targets the problem of reading deficiency, which is the most urgent need in twelve of west central Georgia’s lowest performing and impoverished school systems. It consists of a joint venture to implement, evaluate, and refine a teacher education model that will significantly restructure the manner in which educators are prepared to teach reading in the schools. This involves the novel use of modern technologies. Web-enhanced learning tools will move educator preparation into the region’s schools and classrooms. Diagnostic software is used to assess students’ reading skills, to analyze and interpret results, and to inform instruction.

The primary goal of the Enhancing Teacher Education through Technology (ET)² project is to create a training program allowing pre-service teachers to develop competencies in the use of advanced technology at the State University of West Georgia’s teacher education program at Dalton State College. Pre-service teachers will be taught to: (1) create learning environments where advanced technology is used to teach content standards; (2) use a variety of classroom management techniques necessary for successful technology integration; (3) create technology connected lessons that include new designs for learning and enhanced pedagogy; (4) analyze student achievement/assessment data to make decisions for structuring technology connected lessons; and (5) create an educational website to enhance classroom learning.
The Crossroads: Preparing Tomorrow’s Teachers to Use Technology at the Intersection of Content, Pedagogy, and Technology (Crossroads) project is designed to prepare high quality and technology proficient teachers for metro Atlanta’s many diverse classrooms, by addressing the intersection of content, pedagogy, and technology with training, support systems, and environmental change. To achieve this goal, the project will focus on five areas: pre-service teacher education, training mentor teachers, university faculty development, electronic performance support, and research in emerging technologies. Specifically, the project will: (1) expand the efforts of standards-based technology integration training and evaluation to prepare pre-service teachers to use advanced technology; (2) prepare mentor teachers to work with pre-service teachers to integrate technology into teaching and learning, particularly through work with teacher support specialists and induction programs; (3) expand technology integration support for our students and graduates throughout the critical student teaching and induction phases through the design, development, and evaluation of an on-line support environment for novice teachers, teacher support specialists, and teacher mentors; (4) integrate further the use of advanced technologies and pedagogy and university faculty training in their use; (5) add to the body of scientific knowledge and continue research efforts in the use of new and emerging technologies for teaching and learning; and (6) disseminate design, development, and research findings. The project will focus on serving disadvantaged populations in inner city Atlanta schools.

The Evidence-based Technology Enhanced Alternative Curriculum in Higher Education (E-TEACH) project is framed within evidence-based decision making, which involves purposeful use of performance data to measure the effects of the programmatic interventions. There are four dimensions to the project—faculty development, curriculum refinement, technology integration, and continuous support—which are directed to improve teacher practice and student achievement.
The Integrating Technology, Assessment, and Action Research (ITAAR) project will involve cooperating teachers in five partner school districts and teacher education faculty and clinical supervisors in the Colleges of Education and Liberal Arts and Sciences. It will redesign assessment, instructional technology, teaching methods courses, and clinical experiences to better prepare pre-service teachers to use advanced technologies for the collection and management of K-12 student assessment and achievement data and conduct action research in K-12 classrooms. Consortium representatives will collaborate to develop a model focused on data-driven instructional decisions for improved achievement.

The mission of the Maryland Teacher Technology Standards – Online (MTTS – Online) project is to energize teacher education programs to prepare pre-service teachers to integrate the use of student and school data and technology in the instructional process. This project has three major goals: (1) to prepare pre-service teachers to use technology to interpret and analyze student and school data to develop data-driven instructional decisions; (2) to prepare pre-service teachers to design, deliver and assess learning experiences that integrate technology, are data-driven, and are designed to improve student achievement; and (3) to implement, evaluate and disseminate technology-based models used in teacher preparation programs to assess pre-service teachers and to improve programs.

Project LEARN/21C, a five-member Massachusetts consortium, will focus on developing curriculum/technology integration skills in pre-service and college faculty through participation on teacher teams in K-12 school districts that are developing Internet-based, project-based units (PBUs). PBUs will be implemented in K-12 classrooms and evaluated for their effectiveness in increasing student achievement. PBUs will also be the catalyst for changing education courses and teacher preparation at the college level regarding curriculum/technology integration.

The Teachers as Designers: A Problem-Based Approach to Preparing Teachers to Use Technology project aims at preparing teachers who are able to use technology flexibly to improve academic performance of all students using a problem-based approach. The fundamental theoretical basis of this approach is the concept of teachers as designers, which suggests that teachers learn to use technology through designing technological solutions to authentic pedagogical problems. The project includes four components: problem-based design teams, Web-based learning and assessment environment, technology integration, and reflective documentation.


The PT3: Achievement Through Data-driven Decision-making and Instructional Technology (PT3: ADD-IT) project seeks to prepare teachers who will be proficient in interpreting, analyzing, and incorporating data into the instructional process in order to improve student achievement through inquiry-based learning connected to state knowledge and performance standards, using advanced technology for assessment and instruction. To meet this goal the project has four major objectives. First, a spiraling teacher development program curriculum will leverage current and developing technology to prepare pre-service teachers to assess and analyze student learning for improving instruction based on Missouri performance standards. Second, pre-service and in-service teachers will develop the capacity to analyze, interpret, and use testing and assessment data in conjunction with technology to support all students’ learning. Third, beginning University of Missouri teacher graduates will be supported throughout their induction year in student assessment, data-driven decision-making, and effective instructional practices. Finally, student progress will be documented and assessed through development of an electronic portfolio system.
The Technology in Teacher Education – Nevada (TITE-N) project, through the University of Nevada-Reno, will prepare pre-service teachers in technology proficiency by making systemic changes to the teacher education program. These changes include: improving the foundational course in educational technology at both the University of Nevada-Reno and Truckee Meadows Community College; making educational technology a focus in a series of pre-service seminars taken with methods and field-based practicum courses; requiring all pre-service teachers to develop electronic portfolios; requiring an increased use of technology during the supervised internship; providing incentives for internships in remote and rural placements. These changes will enable future in-service teachers to infuse the latest instructional technologies seamlessly into the K-12 classroom.

The Community College Pathways to Improved Teacher Preparation Through Technology (Pathways) project adapts a proven set of P-12 training materials and Internet-based curricula for use in math, science, language arts, and educational technology in community college courses taken by pre-service teachers. It will create an online library of technology-based learning objects to promote constructivist learning in the community colleges. Faculty from thirty community colleges will participate in a face-to-face/online training and development program and will be supported by mentors in an online learning community to promote institutionalization.

Recognizing the power of field experiences in teacher preparation, the Contextualizing Teacher Candidates’ Experience with Technology (ConTExT) project will prepare teacher candidates to use technology tools to support students with diverse needs to achieve academic success. In the context of pedagogically-rich field placement sites, teacher candidates will have the opportunity to participate with clinical faculty to design and implement appropriate technology applications within an integrated, inclusive curriculum.
The overall goal of the Reflective Mediation Through Use of Technology project is to develop a clearly defined and sequential series of experiences for all teacher education students involving actual classroom experiences in urban schools to help students become reflective teachers while still supporting a rigorous classroom curriculum. The students will be supported with a variety of video tools, including an established distance learning network between K-12 schools and the college. The objectives to be achieved include better prepared teachers with an understanding of the role technology plays in differentiating instruction in a standards-based classroom and a better campus infrastructure for supporting real classroom experiences for more teachers in more courses.

Syracuse University proposes a comprehensive initiative to develop the capacities of pre-service teachers to make effective use of advanced technology to actively engage all students in learning. The Using Technology to Transform Teaching (UT3) project will use digital technologies to effect basic changes in the support and evaluation of pre-service teachers’ work with their students. By partnering with a high-needs urban school system, developing teams of pre-service teachers, mentor teachers, and school librarians, and developing the ability of pre-service teachers to analyze and account for their own students’ learning, the project will prepare the teachers of tomorrow to serve the needs of students in disadvantaged school districts and to address the unique needs of at-risk students and students with disabilities in all settings.

This study addresses the issue of the relative decline of American students academic achievement compared to the rest of the industrial world as they enter the middle school years. Hence, goals for the MiddleData project include facilitating standards-driven reform of North Carolina State Universities middle-grades teacher preparation program, improved technology and data-driven decision-making skills, improved integration of technology in core curricula, and increased exposure to diverse classrooms and master teachers. Activities in the project will include course redesign and subsequent faculty modeling of data driven decision-making and integration of advanced technologies. Also included will be teaching portfolio development and proficiency certification. Pre-service teachers will receive robust and diverse field experience including interactive observations via real-time videoconferencing technologies. An empirical evaluation of the approach will document its efficacy.
The major problem of deaf education is not a lack of hearing, but an abundance of isolation. This isolation impacts deaf and hard of hearing (d/hh) students, teachers of these students, and the nation’s faculty and pre-service teachers. This isolation has served to maintain a failed educational system, for it is a system that has resulted in generations of d/hh students being essentially “left behind,” written off, and forgotten. The purpose of the Join Together project is to initiate a fundamental reform of that system through a nation-wide on-line community of practice and a virtual professional development school dedicated to instructional effectiveness and academic excellence within d/hh education.

This purpose of this project is to improve the technology skills of teacher education students at Northern State University in South Dakota. The project will assist university faculty and teacher education students in: (1) using technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning; (2) applying current research on teaching and learning with technology when planning learning environments and experiences; (3) facilitating technology-enhanced experiences that address content standards and student technology standards; (4) using technology to support learner-centered strategies that address the diverse needs of students; and (5) using technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

The goal of the Mentoring Emphasis for Rural Intern Teachers (MERIT) program is to implement the use of interactive video conferencing and Web-based software for the mentoring and supervision of student teachers in rural schools, while expanding the use of 21st century communication tools in pre-service programs at colleges of education. It combines Interactive Video Conferencing (IVC) with Web-Based Software (WBS) to structure an Interactive Learning Community. By developing a new mentoring model between colleges of education and rural schools, the use of long distance, unobtrusive classroom observation will allow timely feedback and coaching for student teachers by their supervising professors.
P342A030091 University of Vermont-College of Education of Social Services  (VT)

The Electronic Portfolio Connection seeks to answer the question: How does the process of using a comprehensive e-portfolio tool during teacher preparation impact teacher candidates’ practices and use of technology in P-12 classrooms? This research-based project will design and implement a three-year, prospective study of pre-service teachers in Vermont State Colleges, Champlain College, and the University of Vermont teacher preparatory programs. It will evaluate the impact of using an integrated portfolio system that provides a range of communication tools, storage and searching capabilities, and digital video management features. This study will follow pre-service teachers through their teacher preparation program and field experience to examine how using these tools impacts their practice and proficiency in using technology. This portfolio system will also be used at a unit level at the University of Vermont to learn about and evaluate its teacher education program. The project includes professional development for both higher education faculty and pre-service teachers to use this new portfolio tool. The Electronic Portfolio Connection is a cooperative effort between the University of Vermont, Vermont State Colleges, Champlain College, Vermont Department of Education, Vermont Institutes, IBM, Apple Computer, and the Metiri Group.

P342A030033 The Vermont Institutes  (VT)

The SimSchool partnership will develop a network-based curriculum enhancement for pre-service education that provides rapid development of results-oriented teaching by future teachers. SimSchool, like a “flight simulator” for teaching, will help future teachers use technology to connect their teaching to student results by simulating student performance in response to classroom level actions. Pre-service educators using SimSchool will be supported in developing their own use of result-oriented teaching methods, their self-reflection as researchers and teacher educators, and as guides to future teacher’s use of classroom level student data to improve results for all students.

P342A030052 Radford University  (VA)

Project Pre-Service Teacher Transformation through Technology (Project PT3) is an intentional collaborative system developing tightly linked educational technology partnerships to facilitate shared collaboration for pre-service teacher technology enhancement, enhanced faculty development, shared technology resources, innovative educational technology, and instructional design. The project will strategically use resources to build a collaborative structure to transform teacher education programs at Radford University through the applied use of technology. The project establishes a two-year-long applied approach to technology for pre-service teachers, throughout their upper division coursework.