

Technology Vision Plan

2007-2008

**College of Education
The University of Texas at Austin**

Submitted by

**The College of Education
The University of Texas at Austin**



College of Education Technology Vision Plan Committee

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College of Education Technology Vision Plan 2007-2008

Summary of Requests

The College of Education (COE) continues its steady advance toward the integration of computing and telecommunication technologies into all aspects of its academic, research, and service functions. The College's goal is to utilize these technologies to facilitate instruction, collaboration, and research, and to improve professional preparation in all components of its undergraduate and graduate programs. The College demonstrates its commitment to this goal by providing an educational environment enriched with high-speed data networks, numerous technology facilities and services, and the training and support necessary to make best use of these tools.

The College of Education is committed to providing a distributed technology environment, in which technology is available anytime, anywhere. The use of laptops and wireless networks has become increasingly widespread, and the College is working toward making technology available in a wide variety of settings, from campus classrooms and cooperative schools, to informal collaborative workspaces. The Laptop Initiative for Future Educators (LIFE), which is now in its ninth semester and requires all students in the teacher education Professional Development Sequence to purchase an Apple iBook, has certainly been a major impetus toward this vision of pervasive technology use, and continues to affect all facets of the College's planning for technology services and facilities.

A major goal reflected in the 2007-2008 College of Education Technology Vision Plan is to expand the College's distributed technology environment to better serve the entire College of Education community, going beyond the previous emphasis on undergraduate teacher education students. For example, a proposal to purchase digital audio recorders and obtain transcribing software will facilitate graduate students' research needs. Another project, to obtain and license Studiocode, will provide a state-of-the-art way to analyze and record research data from video recorded material. Using laptop videoconferencing and other technologies to better support apprentice and novice teachers is the goal of another project.

Two projects will provide new technology facilities for students in the Department of Kinesiology and Health Education. One proposes two classroom sets of laptops with mobile charging carts for Belmont Hall; the other will

develop an innovative laboratory to demonstrate technology use to promote, monitor, and manage physical activity.

Several projects continue the work of previous years' projects. A project to install an instructor console in the Sánchez Laptop Compatible Classroom, along with projector/console systems in six more classrooms, will put a projection system in almost all COE classrooms. More "Technology Tool Kits" are proposed to serve the needs of apprentice teachers in secondary education. To continue and expand on the work of the "Instructional Applications of Handheld Computing Devices" project, funding is requested to provide a second classroom set of devices, which could not be funded for 06-07, and continued instructional programming for the devices.

Finally, two projects expand facility capabilities to meet growing demands in use. A project to install fiber channel cards, optical fiber, and an 11 TB Xserve RAID will equip thirteen digital video editing computers in the Learning Technology Center with large file storage capability and allow students to work on their projects on any of the thirteen computers. This will satisfy the increasing demand for digital video editing capabilities by alleviating scheduling and technical problems caused by storing unfinished projects on the local drive of a single computer. This would also provide storage for the large research files that will be generated with the use of the proposed Studicode video analysis software. And to address continued heavy demand for videoconferencing, the College proposes to install cameras in its Advanced Applications Laboratory, creating a second videoconferencing classroom, which will allow two videoconferences to be held at once.

The budget requested for 2007-2008 is **\$496,835**.

If there are questions concerning these projects or other information described in this report, please contact Dr. Paul Resta, Director, Learning Technology Center, College of Education (resta@mail.utexas.edu).

Overview of Current IT Programs and Infrastructure

Mission and Goals

Through its mission of teaching, research, and service to the state and nation, the College of Education at The University of Texas at Austin prepares outstanding teachers and other educational leaders and advances society's

knowledge of teaching and learning. An integral part of the College's mission is to prepare education professionals who understand, and are skilled in, the educational uses of technology. The College is committed to preparing educators who can effectively use and teach with technology so that they can, in turn, impart to their students the skills and knowledge necessary for a complex 21st century economy, with its critical need for workers who can use a wide variety of technology.

The College has worked to fulfill this mission by utilizing technology to facilitate instruction, collaboration, and inquiry in all its undergraduate and graduate programs. The College's commitment to this mission is demonstrated by its educational environment enriched with high-speed data networks, numerous technology facilities, and the training and support necessary to make the best use of these tools. In recent years, the College has carried this commitment further, working towards making technology available anytime, anywhere in a distributed technology environment.

The College's Vision Plan Committee has developed the following technology goals that have been addressed on an ongoing basis by previous Vision Plans and other technology initiatives:

- Continue systematic College-wide strategic planning of information resources and technologies that include all students, faculty, administrators, and staff.
- Develop high levels of technological competence in the College's students, faculty, and staff.
- Provide access to high performance digital services and global online resources to support teaching, research, and service.
- Provide access to information technologies for all members of the College community and provide the support and experience needed in a range of technology applications and environments likely to be encountered in the workplace of the 21st century "Knowledge Society."
- Infuse technology into all phases of teaching, research, and service and develop new models, tools, and strategies of instruction based on the latest technologies.
- Provide students, faculty, staff, and other community partners with online collaborative environments and network access, both on and off campus, to promote the sharing of the information they need for study, teaching, research, and administration.

Programs

Laptop Initiative for Future Educators (LIFE)

The Laptop Initiative for Future Educators (LIFE), now in its ninth semester, is a major step toward the fulfillment of these goals. This groundbreaking initiative requires all teacher education students entering the professional development sequence to acquire a prescribed laptop computer and software, and is designed to immerse preservice teachers in a technology-rich learning environment of ubiquitous access to technology tools, Internet-based resources, and online communication systems in both their coursework and field experiences. Faculty and clinical supervisors are also equipped with the same equipment and software and are given curriculum development support.

This complex program requires considerable recurring funds for the salaries, equipment, and resources necessary to effectively carry out its operations. Extensive training is provided to faculty and students. A wide array of peripheral technology equipment is available for checkout to students for multimedia assignments created with their laptops, as are loaner laptops when theirs must be sent for repair. The Laptop Help Desk provides walk-in technical support for students, and the Application Support Center (ASC) provides help with software. A coordinator manages this extensive range of efforts and resources, and provides information to other higher education institutions interested in developing their own laptop programs.

Several Vision Plan projects in recent years have addressed LIFE-related needs, such as the project to provide technology kits equipped with projectors, digital cameras, and camcorders to the apprentice teacher cohorts for use in their field experience schools, and the project to establish an application support center.

Learning Technology Center

The Learning Technology Center (LTC) supports the College of Education's instructional and research activities by providing computer, digital media, and telecommunications facilities, equipment, and services. Through the work of the LTC staff, many new technologies have been made available in the College in recent years. The LTC developed and maintains the College's computer networks, both wired and wireless, and server system. Several large-scale technology facilities have been designed and constructed to serve faculty and students in five buildings, including a Distance Learning Classroom and Model Technology Classroom. The center also provides nine other computer lab facilities, with both Mac and PC platforms. These include an Assistive Technology Lab with specialized hardware and software to teach students about adaptive equipment for people with disabilities, and a Laptop Compatible Classroom where students can plug in power to their own laptops during classes. The LTC checks out peripheral equipment, such as digital camcorders, to

students free of charge, and delivers equipment, such as mobile laptop labs, to College classrooms. (See “Infrastructure” section below for more details.)

The LTC’s IDEA Studio assists College of Education faculty with the integration of technology into their curricula. The Technical & Network Services team provides desktop technical help for College faculty and staff. The LTC also employs a Web Designer who maintains and updates the College’s Web site and assists departments and centers with their sites. And through the leadership of its Director, Dr. Paul E. Resta, the LTC has been involved in a number of research projects and collaborative initiatives that advance the use of technology to meet the needs of teachers and students throughout the state and nation.

These wide-ranging, high-quality resources and services require a large and skilled staff. The LTC employs 22 regular full- and part-time employees and 23 hourly part-time employees. Its IT-related funding consists of ITAC allocations (LTC personnel handle all ITAC-related purchases, and the resources purchased for many ITAC projects are housed and managed in the LTC), and a percentage of the flat rate tuition that all College of Education students pay each semester. (See “Funding Sources” section below for more details.) In addition to this college-wide program, some of the College’s academic departments have IT personnel, for the most part concentrated on maintaining departmental Web sites.

Infrastructure

Below is a list of the computer labs or IT-equipped classrooms within the Learning Technology Center and their resource specifications. All labs have PRS laser printing and image scanners available.

- Advanced Applications Lab, SZB 324: 40 Apple iBooks, wireless network, instructor console, dual rear screen projection.
- Distance Learning Classroom: Instructor console, rear screen, video cameras and microphones, technician-operated, providing interactive audio and video links via the UT network, telephone, or webcast.
- Multimedia Research and Development Lab, SZB 439A: 10 Power Mac G5s with Superdrives, 10 Dell Pentium 4s with DVD burners, instructor console, and ceiling-mounted projection.
- Macintosh Lab, SZB 439B: 30 iMac G5s with Superdrives, instructor console, and ceiling-mounted projection.
- PC Lab, SZB 439C: 24 Dell Pentium 4s with DVD burners, instructor console, and ceiling-mounted projection.

- Model Technology Classroom, SZB 439E: 25 Apple iBooks, wireless network, instructor console with rear screen projection, 2 plasma screens.
- Laptop Collaborative Area: Group and individual seating for 40 to use laptops wirelessly, collaborate, study, and charge laptop batteries.
- Open Lab, SZB 439: 6 Dell Pentium 4s and 6 17" LCD iMac with Superdrives. Always "open" for student walk-in use.
- Laptop Compatible Classroom, SZB 518C: Wireless network and power for student-supplied laptops, large screen projection, seating for 23.
- Assistive Technology Lab, SZB 518E: Specialized hardware and software to demonstrate accommodations for the needs of people with disabilities.
- Open Lab, SZB 536: 8 Dell Pentium 3s, 4 Power Mac G4s with Superdrives, and 10 laptop-use stations with power and wireless network. Always "open" for student walk-in use.
- Science Education Technology Classroom, in SZB 316: 30 iBook laptops in a mobile laptop cart and 4 science lab tables.
- Kinesiology Lab in BEL 844: 13 Dell Pentium 4s with DVD burners.

Additional computer equipment available for classroom delivery:

- Mobile presentation carts: 2 available in SZB, 1 available in BEL with MacBook with PowerPoint, wireless network connection, projector, and speakers.
- Mobile Laptop Class Cart: One cart is equipped with 25 MacBooks for dual platform use, one with 25 iBook G4s, one with iBook G3s, all with wireless network connection.

Video editing facilities include:

- 3 Digital Video Editing Bays in SZB 537: Power Mac G5s with iMovie or Final Cut Pro, 2 editing bays have DVD Recorders.
- Stereo Audio Mixing Room in SZB 537: Microphone, tape, and CD inputs with audio mixer.

Other equipment available for student and faculty checkout includes:

- Mini DV Camcorders
- Digital Still Cameras
- iSight Cameras
- Image Scanners
- Apple and PC laptops
- LCD Projectors
- FireWire Hard Drives
- Conference Phones

The Learning Technology Center's Technical & Network Services team maintains the College's computer data networks and servers and works hard to continually update these systems. Pertinent data on these systems include:

- The LTC oversaw the complete rewiring of the Sánchez Building and construction of new data closets in 2005. The switched data network now has 100% full duplexed 100 Mbps Ethernet connectivity with 1580 active network nodes spanning 5 buildings.
- 46 wireless access points provide wireless networking in 4 buildings.
- TeachNet, the COE e-mail and conferencing, and chat system averages 3,520 logins per day.
- The College has 33 servers, running Mac, Windows, and Unix systems.
- The College's Web server averages 88,700 requests per day.

Current and Proposed Funding Sources for IT Programs and Infrastructure

- 19-9706-00 – Annual Infrastructure Allocation and One-Time Project Allocation (ITAC Funding)
- 19-2638-22 – Learning Resource Center Usage Tuition
- 14-7482-80 – Deans Research and Support Account, which supports the Vision Award program. (See Vision Awards, Best Practices Section)
- 30-2101-27 – UT Libraries UTOPIA Grant, which also supports the Vision Award program.
- 14-7482-55 – Funding from the Department of Curriculum & Instruction to cover the purchase of certain LIFE program software applications.

Best Practices

The College has implemented several “best practices” in recent years. Following are short descriptions of those that have had the greatest impact.

Network Policies

Perhaps foremost among the College's best practices are the detailed policies governing data network use. These policies, developed by LTC staff, went into effect in July 2004 and require the registration of all COE computers with the LTC's Technical & Network Services. This allows quick response to security breaches, such as rogue servers and other compromised computers. The policies also require logins with a centralized system using complex passwords and a basic security configuration “template.”

College-wide implementation of the network policies was completed in 2006. Since their introduction, the policies have reduced the impact of viruses,

operating system vulnerabilities, and hacking incidents. Technical staff spend less time managing these security breaches and can more easily distribute to College users the latest virus protection and security updates. Users also benefit from a more cohesive and seamless computing environment.

Vision Awards

The Vision Awards are certainly an example of a successful best practice. A 2002-2003 Vision Plan project proposed increasing technology integration in College of Education courses by tapping the technology expertise of UT students. The ITAC funded project, dubbed the "Vision Awards," began in 2003 with 10 projects. The program has continued to expand since then with additional funding from the Office of the Dean. Four student employees with a wide range of technology development skills are hired for the "Vision Studio" and work year-round on projects proposed in three-yearly award cycles.

The program supports faculty proposals for technology-based projects that enhanced their teaching and have the potential to improve instruction throughout the College. The quality of Vision Award projects was recognized earlier in 2006 when two of them received Innovative Instructional Technology Awards.

Vision Award projects have been an immediate boon to course instruction, benefiting hundreds of students each semester. The projects allow faculty to integrate technology activities into instruction in ways they have been unable to in the past. The program is making real progress toward the College's goal to improve instruction with technology.

In-House Development of Management Applications

Another best practice has been the LTC's development of Web-based applications to assist with the management of its equipment and facilities reservation system and of its large staff of technical assistants. Many of these applications were developed by the student employees, and include a time clock, a bulletin board, and the ability to generate statistics on facility-use data. Student workers also developed a Web-based system for reserving LTC computer labs and equipment and tracking inventory.

Recognizing that the importance of Web-based applications will continue to grow, in 2006 the LTC hired a Web applications programmer who had worked on many of the applications as a student. Among several projects, the programmer has developed improved versions of the reservation system and is working on a content management system for the College Web sites.

Trend Toward Laptop and Wireless Use

The move toward the use of laptops and wireless networking provides greater flexibility of access to instructional technology and lowers the costs of equipping, maintaining, and staffing computer lab facilities. The creation of new laptop computing and collaboration spaces in the College will help to further facilitate this trend, and has been a priority in 2006. The LTC remodeled one of its areas to create a large laptop collaborative area. A current year ITAC project has funded the creation of another laptop workspace for students on the third floor of the Sánchez Building.

Through the Laptop Initiative for Future Educators, the use of laptops and wireless networking has even extended into the public schools to enrich the field experiences of teacher education students. The College has also piloted the use of laptop videoconferencing to allow students in field settings at great distances to remotely participate in teacher education courses and receive university supervision. The College has also begun to pilot the use of laptop videoconferencing to support apprentice and novice teachers. The 07-08 project "PROMISE" will further these efforts.

Another goal the College is currently working toward, the installation of ceiling-mounted projectors in most of its classrooms, will provide greater flexibility and convenience for faculty and students and will result in lower costs, because fewer deliveries of computer carts will be needed.

Use of Previous Academic Year Allocations (2005-2006)

For the year 2005-2006, eight projects were proposed with a total of \$463,450 requested in funding. In September 2005, the College of Education received an ITAC allocation of \$241,000. Based on this amount, the Vision Plan Committee partially funded five of the projects; three were fully funded.

- 1. Installation of Permanent Projectors in Classrooms.** This project proposed continuing with the installation of ceiling-mounted LCD projectors in College classrooms to facilitate the growing use of laptop computers in the College and to reduce the need for computer cart reservations and deliveries. The project proposed funding of \$80,000 to continue this effort; it was given a fully funded allocation of \$80,000. \$66,458 of this funding was used to install equipment in ten rooms in 2005-2006. The remaining \$13,542 was carried over, and along with 2006-

2007 funding of \$100,000, will be used to install projection systems in 11 more classrooms in December 2006.

2. **Support of LIFE Project and Technology Utilization of Field Experiences.** This project called for the creation of technology tool kits to provide apprentice teachers in field schools easier access to projection and multimedia equipment. A budget of \$110,610 was requested, and \$45,000 was allocated. This amount allowed for the creation and distribution of 20 technology tool kits in 2005-2006.
3. **Provide iVisit Web Videoconferencing.** The College proposed purchasing iVisit software licensing and a Web server to allow teacher preparation field facilitators to increase supervision of apprentice teachers while decreasing travel time. The budget of \$8150 was fully funded and the funding was spent as proposed.
4. **Update Mobile Computer Delivery Carts.** Although the installation of projector systems into classrooms has lessened the need for them, mobile computer carts are still needed for some rooms, and their equipment had become outdated. This project proposed spending of \$49,800 on new carts equipped with laptops. The project received \$19,850. To date, \$14,892 has been spent on equipping existing carts with new laptops and projectors. The remaining \$4958 will be spent this year when the priorities for cart improvements have been determined.
5. **Create Additional Technology Classroom.** This project was a continuation of a 2004-2005 project. \$70,000 was requested to complete the renovation and equipping of SZB 316, a science lab/technology classroom facility. \$30,000 was allocated. With the \$30,000 provided in 2004-2005, the project had \$60,000 total in ITAC funding. \$10,000 was spent in 2004-2005 on laptop computers, a laptop storage cart, and laptop power adapters. In 2005-2006, \$20,000 was spent for the summer 2006 renovation construction, and \$23,530 was spent on additional laptop computers. The remaining \$6470 has been carried over and will be spent this year on software and supplies for the room.
6. **Upgrade and Enhance DLC/AAL Systems.** This project proposed upgrading the audio systems in the College's Distance Learning Classroom and providing videoconferencing capabilities to its Advanced Applications Laboratory. \$23,000 was requested and \$12,000 was allocated. This was enough to update the DLC audio systems. The \$12,000 was spent in 2005-2006 to purchase a mixer/echo cancellation unit and specialized ceiling microphones, along with their installation and system programming.

7. **Assistive Technology Laboratory Expansion and Renovation.** Funding of \$20,000 was requested to expand and renovate this facility, and it received full funding. The amount was spent on the January 2006 construction.
8. **Establish Movement Sciences Teaching Laboratory.** \$45,000 was requested to purchase specialized equipment for a Movement Sciences Lab in the Department of Kinesiology and Health Education. \$26,000 was allocated and used in 2005-2006 to purchase Matlab software, computers, and Biopacks, which are data acquisition and analysis tool sets.

IT Projects for 2007-2008

Studiocode: Video Analysis Underlying Learning and Teaching

A powerful emerging tool for behavior analysis is the systematic asynchronous coding of activities captured on digital video. Studiocode is an application that, while originally developed and marketed for analysis of sport performance, offers great potential for the systematic analysis of teacher-student activities and interactions. This application accepts standard digital video files and provides a customizable coding strategy to mark occurrence and onset/offset times of selected behaviors. The user can move through the video in normal, slow, or stop action modes, using panel buttons or keystrokes to code activities. The data can be displayed as frequency histograms and are linked to markers in the video files so each coded event can be recalled. Interestingly, the software is designed to run optimally on Macintosh computers.

This application is a very powerful tool for students to use in studying master teachers, in critically analyzing their own efforts, and in setting and assessing performance objectives. It is particularly useful when student activity is visible, as in movement. Faculty can also use this application to demonstrate recommended teacher behaviors and resulting student activity. Several demonstrations of this software received rave reviews from College faculty in several departments. The only drawback to widespread adoption is the high cost of software licenses. Fortunately, the company is interested in providing inexpensive software lease options to students if the College will subscribe to a base number of licenses.

The College proposes a pilot of the system in a cohort which is highly motivated to use the system, the Physical Education Teacher Education (PETE) program, while also allowing other groups to have access for less widely distributed use in an LTC computer lab. The proposal requests 12 basic licenses; eight would be installed in the Multimedia Lab, and four would be assigned to PETE faculty. Additional funds are required for support and training. If this institutional investment is made, Studiocode has agreed to provide students with an annual lease cost of \$50. Thus in the first year the College can pilot the system with the PETE cohort while allowing other faculty to observe and try it out. If it is widely used, additional funds can be sought to expand the number of base licenses; the student lease option does not have any limits.

Budget Detail:

| | |
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| Basic Studiocode Software Licenses (12 @ \$2500) | \$30,000 |
| First Year Support Contract | \$1,800 |

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|-------------------------------|-----------------|
| First Year Training Contract | \$2,000 |
| 2007-2008 Budget Total | \$33,800 |

Fiber Channel Video Storage for Class Video Projects

The College has seen a large increase in the number of video projects assigned to students in the past two years, mostly due to the College's Laptop Initiative. As a result, the LTC has struggled to handle the students' need for large amounts of hard drive space that video projects demand. Currently, students must use the same computer for all their work on a project, causing scheduling problems, and the danger of accidental deletion cannot be entirely eliminated.

The College of Education proposes to deploy fiber cable and a 5.5 terabyte volume for the storage of students' in-process video projects. This will provide students 50 gigabytes of space to store video projects and will give them the ability to work with their video data at any of the computers in the College's Multimedia Lab or digital video editing stations. This project will also provide storage for the use of the Studiocode video analysis software proposal included in this Vision Plan. If successful, this project could be easily expanded by obtaining an addition XserveRAID to double the capacity of the storage volume.

Budget Detail:

| | |
|--------------------------------------|-----------------|
| XserveRAID | \$14,728 |
| Fiber Channel Host Bus Adapters (14) | \$6,286 |
| Xsan Licenses (14) | \$6,986 |
| Multimode Fiber Cable Installation | \$3,000 |
| 2007-2008 Budget Total | \$31,000 |

Establishing a Physical Activity Technology Lab

Technology has often been lamented as one of the causes of physical inactivity and the obesity epidemic as people spend their time working on computers, surfing the web, and playing videogames. However, technology can also provide many opportunities to enhance health through rich, physically active gaming environments, such as Cateye game bikes and Dance Dance Revolution. Preliminary studies have indicated that people exercising in a gaming environment participate longer and report a lower perceived exertion than people riding a bike or jogging at similar intensities. In addition to activity

enhancing gaming, technology provides activity monitoring systems, such as heart rate monitors and pedometers, and record keeping systems that manage large amounts of data so that it can be used to individualize instruction and exercise programs.

Teachers and others in the physical exercise field need to learn how to use these technologies in ways that enhance the attractiveness of physical activity and provide better and more individualized programming.

This project would create a Physical Activity Technology Laboratory where undergraduate and graduate students would learn how to setup and manage the use of such equipment in instructional and community settings. The PAT Lab could also provide some of this state-of-the-art equipment for checkout by students to use in their apprentice teaching and internships, thus widening its use in schools and the community. A room in Anna Hiss Gymnasium has been identified for the lab's location.

Budget Detail:

| | |
|----------------------------------|-----------------|
| Cateye Recumbent Game Bike (2) | \$3,400 |
| Cateye Upright Game Bike (1) | \$1,200 |
| V Cycle Setup (2) | \$10,000 |
| Playstation 2 (9) | \$1,440 |
| Eyetoys for Playstation 2 (2) | \$100 |
| Playstation Games (6) | \$210 |
| Lock Box for Playstation 2s (11) | \$1,320 |
| Dance Dance Revolution Pads (6) | \$4,200 |
| Dance Dance Revolution Games (2) | \$100 |
| Polar Heart Rate Monitors (18) | \$4,040 |
| Class Management System (2) | \$140 |
| Dell Pocket PC (30) | \$19,200 |
| Trifit Measurement System (1) | \$5,000 |
| 2007-2008 Budget Total | \$50,350 |

Instructional Applications of Handheld Computing Devices

As the power and portability of handheld computing devices continues to increase and their price continues to decrease, College of Education faculty are expressing more and more interest in these devices as a way to integrate technology into a variety of educational activities and environments. Handhelds are capable of running spreadsheet, word processing, and graphing calculator

software; storing and displaying PDF and many media files; connecting to a variety of probes to collect physical data for scientific applications; and attaching to a keyboard for easy data entry. Wireless networking has become standard on most of these devices, and many schools are exploring handhelds as a more economically feasible way to initiate a one-to-one technology environment.

2006-2007

This project received \$35,000 in ITAC funding for 2006-2007. This was enough to hire a handheld programmer and to fund one classroom set of handhelds and some software. A pilot program was initiated and College faculty submitted 15 project proposals for using handhelds in their instruction—more than will be feasible to support with the 06-07 level of funding.

Update for 2007-2008

Based on the interest generated by the pilot program, the College proposes the purchase of a second set of handheld devices along with selected software based on feedback of faculty members who work with the devices during 2006-2007. The College also proposes the continuation of the position staffed by a student with experience in developing applications for these devices.

Faculty will be encouraged to continue to propose ~FAST Tex and Vision Award (College of Education parallel to the ~FAST Tex program) projects for the development of custom handheld applications. In addition, the Vision Award program has supplemented the student handheld developer's position to allow this to be a full 0.5 FTE GRA position within the Vision Award development team. The Vision Award program is dedicated to continuing this support through the 2007-2008 academic year to retain a talented and experienced individual in this position.

Budget Detail:

| | |
|---|-----------------|
| Palm T X (75) | \$22,500 |
| Instructional applications | \$4,310 |
| Programming and instructional support (500 hours) | \$10,000 |
| Palm cases and carrying cases for sets | \$2,375 |
| 2007-2008 Budget Total | \$39,185 |

Technology for Apprentice and Novice Teacher Support (PROMISE)

The Providing Multimodal Induction Support for Educators (PROMISE) project is designed to provide novice teachers with high-quality professional support, to develop teacher-leaders, and to demonstrate methods to improve teacher retention and quality. To meet the needs of the apprentice and novice teachers, while recognizing the economic realities of providing support over great geographical distances, PROMISE uses a broad range of widely-available communications media, such as e-mail, telephone, and videoconferencing to connect novice teachers to university facilitators, master teachers, and peers in a manner that efficiently utilizes expenses, time, and resources.

The technologies used to support the PROMISE project build upon the available resources (i.e., laptop computer and software applications) and the prior knowledge of the apprentice and novice teachers who have participated in the College of Education's Laptop Initiative while they attended College of Education teacher preparation programs. The project targets novice special education teachers and general education teachers in low performing and high poverty education settings. 30 new teachers will receive face-to-face and online professional mentoring support during the school year. Novice teachers located in central Texas are visited by UT facilitators for at least two one-half day classroom observations on the teacher's campus. Other observations will be conducted electronically over the Internet, or by way of video-recorded lessons.

Novice teachers outside the central Texas region participate in electronic observations and may receive one visit from a UT facilitator. Electronic observations from all novice teachers will be digitized and uploaded to a secure site so that the novice teacher and the UT facilitator can view and discuss the observation through streaming video together at a time of their choosing. Desktop video conferencing will be used for pre and post observation conferences. Group desktop video conferencing will be used to bring "Critical Friends" groups of novice teachers and a University facilitator together to discuss relevant topics. Using iMovie, relevant video clips will be created from segments of the electronic observations and used to create a video library that can be shared with all novice teachers as well as apprentice teachers.

Budget Detail:

| | |
|---|-----------------|
| Digital Video Kits (15 @ \$610) | \$9,150 |
| iSight Cameras (30) | \$4,500 |
| Shipping Costs for Digital Video Kits | \$2700 |
| Graduate Research Assistants (2 @ \$17,000) | \$34,000 |
| 2007-2008 Budget Total | \$50,350 |

Installation of Permanent Projectors in Classrooms

Since 2003, a major goal of the College has been to provide a technology environment that encourages the growth of laptop use in a variety of settings. The number of faculty and students who own laptops continues to grow each year and the LIFE program has greatly accelerated this trend. A major initiative to achieve this goal has been the installation of projection systems in College classrooms. Twenty-two rooms have been equipped so far. The projection systems allow laptops to be used for instruction and student presentations without prior planning for projector reservation and delivery. They also reduce the need for, and delivery of, mobile presentation carts, thereby decreasing costs.

2006-2007

As stated above in the "Use of Previous Academic Year Allocations," this project received \$80,000 in funding for 2005-2006, and ten rooms were equipped. In 2006-2007, funding of \$100,000 will allow for the installation of 11 more classrooms, currently scheduled for December 2006.

Update for 2007-2008

The College remains committed to providing uniform installed computer projection capability in as many of its classrooms as possible, and requests funding for 2006-2007 to continue with the project to provide this capability to additional classrooms. The ultimate goal is to have projectors installed in all of the approximately 35 classrooms in the Sánchez and Belmont buildings. The College proposes funding of \$88,000 to outfit seven more classrooms and provide "hot spare" equipment to reduce downtime of existing installations. The classrooms selected for this round of technology implementation include: BEL 858, SZB 329, SZB 368, SZB 423, SZB 439E, SZB 518C, and SZB 523.

Budget Detail:

| | |
|---|-----------------|
| Classroom Projection Capability (7 rooms, spares) | \$88,000 |
| 2007-2008 Budget Total | \$88,000 |

Technology Tool Kits for LIFE Program Field Experiences

Since 2002, the College of Education has required students in the professional development sequence of its teacher certification programs to have a laptop computer. The Laptop Initiative for Future Educators (LIFE) provides a technology-rich environment so future teachers can become competent in using technology in their instruction. An excellent technology infrastructure is among the most critical aspect of the successful growth of the LIFE program. "Technology Tool Kits" extend the technology infrastructure into the schools, allowing apprentice teachers to easily practice technology use with real students.

2006-2007

In 2005-2006, ITAC funding of \$45,000 provide one "technology tool kit" per elementary cohort. In 2006-2007, the apprentice teachers' need for technology equipment in the elementary schools has increased. The LIFE program is also striving to better meet the growing needs of the secondary education cohorts of apprentice teachers who practice teach in middle and high schools. These students are in the Colleges of Liberal Arts and Fine Arts, so the impact of this project will benefit students beyond the College of Education. \$65,200 in funding for the "Technology Tool Kits for LIFE Program Field Experiences" will allow the College to outfit additional technology tool kits so that most elementary cohorts have two kits and the Liberal Arts and Fine Arts cohorts each have one kit. It will also provide for the installation of wireless network base stations at ten schools, so that the apprentice teachers in these schools can more easily use Internet and other network resources in their practice teaching.

Update for 2007-2008

The College proposes the purchase of 10 more technology tool kits to support the secondary social studies, English, and Languages Other Than English (LOTE) cohorts. Each of these cohorts will be assigned two kits, one for the Intern level cohort, and one for the Apprentice teacher level cohort. The remaining two kits will be available for check out for both elementary and secondary cohorts.

Budget Detail:

| | |
|---|-----------------|
| Portable Projector and Bulbs (10) | \$8,500 |
| Firewire Cables (20) | \$200 |
| Digital Video Cameras and Cases (20) | \$9,000 |
| Digital Still Cameras, Memory Cards, and Cases (10) | \$1,650 |
| Tripods (20) | \$2,600 |
| Wireless Microphones (20) | \$1,900 |
| 2007-2008 Budget Total | \$23,850 |

Laptop Fleet for Belmont Hall

Two fleets of laptop computers for Belmont Hall are proposed as part of the College of Education's commitment to providing a distributed technology environment. The mobile fleets will allow technology to be incorporated into multiple Belmont classrooms on a scheduled basis.

The classroom laptops will facilitate learning via interactive Web sites (e.g., human anatomy online), introduction and use of software programs (e.g., Marketing Plan Pro, Business Plan Pro), timely feedback from online surveys, quizzes, and tests (e.g., existing Blackboard features), and the development and critique of various technologies used in the Department of Kinesiology and Health Education (KHE). The laptop fleets will benefit all KHE classes meeting in Belmont Hall.

Budget Detail:

| | |
|----------------------------------|------------------|
| Laptops (60) | \$120,000 |
| Mobile laptop carts (2) | \$4000 |
| Spare batteries and chargers (2) | \$5000 |
| 2007-2008 Budget Total | \$129,000 |

Digital Recording Devices for Checkout

Providing advanced technology options is an ongoing priority, and this year the College of Education wishes to better focus on serving the needs of graduate students in this mission. Many College of Education graduate students have asked for digital audio recorders to use in collecting data for class research, dissertation research, and research conducted in conjunction with faculty members. There are a growing number of graduate students who regularly need these devices and this trend is increasing significantly due to ease of use, clearer recordings, and better data management features, such as time stamps. Digital recorders also provide flexible storage, backup, and file transfer options.

The College therefore proposes the purchase of 20 Olympus DS-2 digital audio recorders to be made available for free checkout from the Learning Technology Center. This recorder is dual-platform and is equipped with 64MB of memory, an internal microphone, USB docking station and cable, a carrying case, and provides 22 hours of recording time.

Transcription software comes with each player, and these programs will be installed on LTC computers. There are also free transcribing software programs available by download for use on both Mac and PC computers, so there should be several computer-based transcription options available to users of the devices if they don't wish to pay for professional transcription services.

Budget Detail:

| | |
|---|---------------|
| Olympus DS-2 Digital audio recorders (20) | \$2300 |
| 2006-2007 Budget Total | \$2300 |

Videoconferencing Capability for the Advanced Applications Laboratory

Demand for videoconferencing facilities in the College of Education has grown steadily over the past two years. The hours of use for the College's Distance Learning Classroom (DLC) jumped from 688 in 2004-2005 to 840 in 2005-2006 and reservations of the room rose from 289 to 371 in the same period.

The College proposes meeting this demand by adding videoconferencing capability to the Advanced Applications Laboratory (AAL), the large computer classroom that is next door to the DLC and shares a common control room. This will also allow the AAL to provide overflow capacity when DLC presentations have a larger audience than it can hold.

Since the AAL was built with wiring and camera housings necessary for videoconferencing, all that is needed to equip the room for this capability are two cameras with remote pan/tilt and a VGA switching system. Other equipment is needed to update the ten-year-old systems in the AAL, DLC, and control room. A Netlinx controller will provide faster processing, additional control ports, and improved network capabilities. A webcasting encoder will meet the growing demand for webcasting in the College, and large LCD flat screen monitors will replace old CRT monitors.

Budget Detail:

| | |
|----------------------|---------|
| VGA Switching System | \$6,500 |
|----------------------|---------|

| | |
|-------------------------------------|-----------------|
| VGA Cabling Installation/ Materials | \$1,500 |
| Netlinx Control System | \$2,500 |
| 15" Color Touch Panels (2) | \$10,000 |
| Pan/Tilt Cameras (2) | \$3,000 |
| LCD Flat Screen TV Monitors (3) | \$10,500 |
| Webcasting Encoder | \$10,000 |
| Integration/Programming | \$5,000 |
| 2007-2008 Budget Total | \$49,000 |