EDUCATOR PREPARATION AND DEVELOPMENT

Preparing teachers and administrators to effectively facilitate and manage 21st Century learning in technology and information rich settings involves radical retooling of the existing professional core of the educational system. Securing time, resources, and effective models for educator professional development presents a tremendous challenge to our state and to the entire nation. Professional development carries the urgent charge of supporting, indeed of catalyzing, the move from traditional schooling to 21st Century schooling. As the "baby boom" educators move into retirement, it will be our systems of teacher and administrator preparation that must fuel education of young Texans with qualified and skilled personnel.

The number of new teachers and administrators needed within the next decade based on student growth and projected retirements is alarming. We must also prepare teachers for significantly different roles, different kids, and different tools and resources. This realization presents the PK-12 community and teacher preparation institutions with the greatest challenges in their history.

Texas needs new teachers with new technology skills and current teachers capable of learning how to integrate technology effectively. A well-trained teacher work force must be actively engaged in the current practices of teaching and learning to affect student achievement. In order to survive in the 21st century, students and teachers, administrators, new teachers and faculty must become skilled in the use of educational technology for problem solving, critical thinking and learning new content. Educators must also have training in data analysis and how to use data to identify appropriate teaching strategies essential to meeting the individual needs of students.

This effort cannot be limited to a single body or single method; it is a goal that must be shared by many education stakeholders and supported by ongoing access to flexible professional preparation and development. It must be aimed not only at new educators—teachers, administrators, curriculum coordinators, counselors, and librarians, among others—but at experienced educators as well, who must be willing to learn.

All beginning educators are expected to meet the Technology Applications proficiencies established by the State Board for Educator Certification (SBEC). The same expectation should be in place for all current teachers to align with the requirements of NCLB, Title II, Part D. With at least twenty-five percent of these funds allocated for technology professional development, a variety of opportunities are provided through Title II, Part D formula and competitive grant programs. The Technology Applications Academies and the Technology Applications Teacher Network also provide rich resources to support the integration of technology into teaching and learning. Education Service Centers provide a variety of professional development opportunities including online and videoconferencing delivery options. There are additional Technology Applications standards and certificate options for educators to expand their digital knowledge and skills and abilities to integrate technology across the curriculum.

The Texas STaR Chart is a planning tool that has been developed around the four areas of the *Long-Range Plan for Technology, 1996-2010* and is designed to help campuses and districts determine their progress toward meeting the goals of that plan. The following chart shows results for the 2003-2004 school year in the area of Educator Preparation and Development.

2003-2004 Texas Campus STaR Chart
Educator Preparation and Development

Early Tech **284 campuses** **4%**

Technology skills include multimedia and the Internet. 10% of educators meet SBEC standards. Administrators recognize benefits of technology in instruction. There is minimal personal use. 5% or less of technology budget allocated for professional development.

Developing Tech **4,016 campuses** **55.9%**

Use of technology is for administrative tasks and classroom management. There is use of online resources. 40% of educators meet SBEC standards. Administrators expect teachers to use technology. 6-24% of technology budget allocated for professional development.

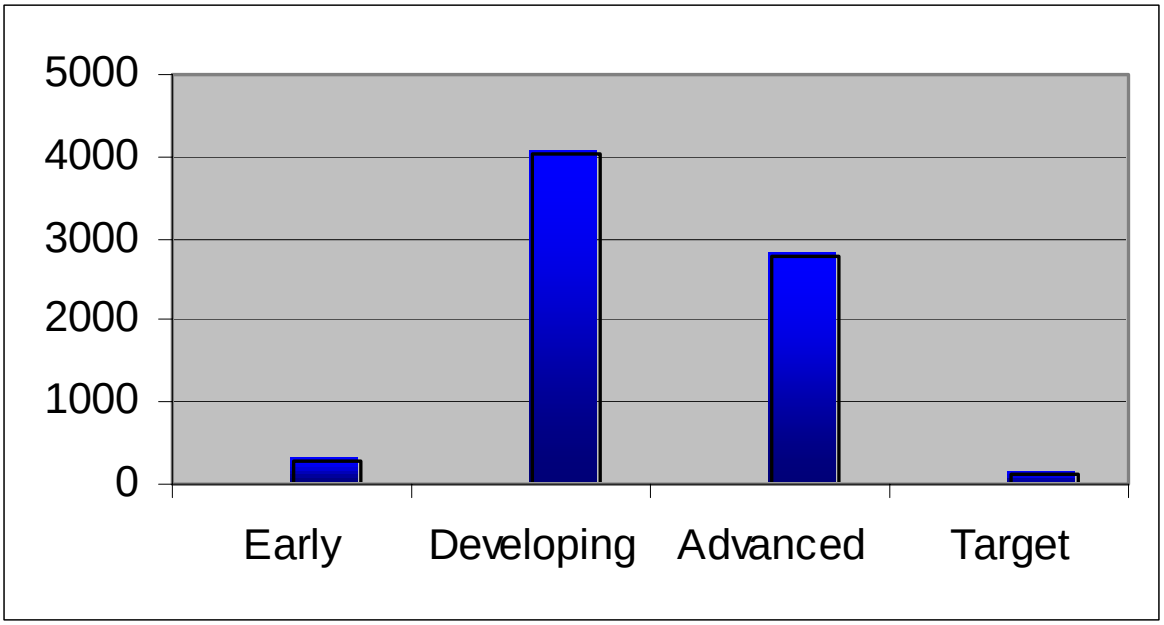
Advanced Tech **2,773 campuses** **38.6%**

There is integration of technology into teaching and learning. There is use of online resources regularly. 60% of educators meet SBEC standards. Administrators recognize and identify exemplary use of technology. 25-29% of technology budget allocated for professional development.

Target Tech **113 campuses** **1.6%**

There are regular technology-supported learner-centered projects. There is vertical alignment of Technology Applications TEKS and anytime, anywhere use of online resources. Administrators ensure integration of appropriate technology. 100% of educators meet SBEC standards. 30% or more of budget allocated for professional development.

Educator Preparation and Development



EDUCATOR TECHNOLOGY EXPECTATIONS

The State Board for Educator Certification (SBEC) approved educator certification standards in Technology Applications for ALL beginning educators. The Technology Applications standards are incorporated into the Texas Examination for Educator Standards (TExES) for Pedagogy and Professional Responsibilities at each certification level. The Technology Applications SBEC standards are based on the Technology Applications Texas Essential Knowledge and Skills (TEKS) for students in Grades 6-8.

Technology Applications Educator Standards I–V	
I.	All teachers use technology-related terms, concepts, data input strategies, and ethical practices to make informed decisions about current technologies and their applications.
II.	All teachers identify task requirements, apply search strategies, and use current technology to efficiently acquire, analyze, and evaluate a variety of electronic information.
III.	All teachers use task-appropriate tools to synthesize knowledge, create and modify solutions, and evaluate results in a way that supports the work of individuals and groups in problem-solving situations.
IV.	All teachers communicate information in different formats and for diverse audiences.
V.	All teachers know how to plan, organize, deliver, and evaluate instruction for all students that incorporates the effective use of current technology for teaching and integrating the Technology Applications Texas Essential Knowledge and Skills (TEKS) into the curriculum.

Source: 2003-2004 STaR Chart

The Technology Applications SBEC Standards are used to assist the state in ensuring that all educators are technology literate and are integrating technology into the curriculum as outlined in the *Long-Range Plan for Technology, 1996-2010* and required by No Child Left Behind, Enhancing Education Through Technology, Title II, Part D. Schools can document how well they are meeting the Technology Applications SBEC standards by using the Texas Campus STaR Chart. The chart is a planning and assessing tool for campuses and is also aligned with the recommendations in the *Texas Long-Range Plan for Technology, 1996-2010* and requirements in NCLB.

Texas Campus STaR Chart Data for Column H, Capabilities of Educators	
I. Early Tech 10% meet SBEC proficiencies and implement in the classroom	1,170
II. Developing Tech 40% meet SBEC proficiencies and implement in the classroom	3,449
III. Advanced Tech 60% meet SBEC proficiencies and implement in the classroom	2,375
IV. Target Tech 100 % meet SBEC proficiencies and implement in the classroom	192

Source: 2003-2004 STaR Chart

The Texas Teacher STaR Chart was released in August 2004. The Teacher STaR Chart, like the Campus Chart, is a tool for gauging progress in meeting state and federal requirements. It is designed specifically for teachers to gauge progress in having technology literate students, technology literate teachers, and technology integrated across the curriculum—requirements in No Child Left Behind. The Texas Teacher STaR Chart can assist in the measurement of the impact of state and local efforts to improve student learning through the use of technology. It can also identify needs for ongoing profes-

sional development and raise awareness of research-based instructional goals. Texas teachers may complete the survey online and use the profile annually to gauge their progress in integrating technology into the classroom. Campus and district summary data can be reported to school boards, community groups, and technology planning committees as it is aligned with state and national goals.

Certification Opportunities

In addition to SBEC Technology Applications Standards I-V, there are new Technology Applications standards and certificate options that include: Technology Applications All Level, Technology Applications 8-12, and Computer Science 8-12. These requirements are included in SBEC Technology Applications Standards VI-XI. Test standards, items, and frameworks have been developed, and the first administration of the Texas Examination of Educator Standards (TExES) for these areas is scheduled for October 2004.

Number of Technology Applications Certificates Awarded as of August 31, 2004	
Technology Applications EC-12	283
Technology Applications 8-12	1,752
Computer Science 8-12 (New Certificate for Computer Science)	29
Secondary Computer Information Systems 6-12 (Can teach Computer Science with this certificate)	3,000

Source: SBEC

In addition, there is a Master Technology Teacher (MTT) All Level Certificate. The MTT Certificate is designed to prepare teachers to mentor other teachers and work with students in order to increase the use of technology in each classroom. The 77th Texas legislature passed House Bill 1475 which mandates a Master Technology Teacher certification and grant program.

The law states that: *The commissioner shall make grants to school districts to pay stipends to selected certified master technology teachers. The commissioner shall give preference to teachers who teach at high-need campuses. Criteria for selecting high-need campuses will be identified and approved as part of the commissioner rules. The grant program will be implemented after the development of the examination for the master technology teacher certification.*

Due to budget shortfalls, there is currently no funding for the grant program.

SBEC established a committee of Texas educators, educator preparation faculty, business representatives, and other stakeholders to develop standards for the new certificate. Master Technology Teacher Standards were adopted by the SBEC board in January 2002. These standards serve as the basis for the certificate examination. In February of 2002, the test framework for the Master Technology Teacher (MTT) exam was finalized. The first administration of the examination for the Master Technology Teacher certification took place in Summer 2003.

Number of Master Technology Teacher Certificates Awarded as of August 31, 2004	
Master Technology Teacher EC-12 (Must complete coursework and pass MTT exam to receive this certificate)	37

Source: SBEC

Each of these certificates gives Texas teachers options for expanding their digital technology knowledge and skills and abilities to integrate the technology across the curriculum.

We currently have 73 students in our year long MTT program. With this current class, our total number of trained MTTs will exceed 200! We have 13 students that have successfully completed all requirements for the MTT certification and are serving in leadership roles on their home campuses. I cannot tell you how successful the program has been for the students and teachers of Houston ISD. Recently in a meeting of campus leadership teams, it was noted that about half of the representatives from the campuses were MTT graduates of our program. It is exciting that the leadership and knowledge of our graduates is showcased in such a manner. I am thankful that SBEC, TEA, and the state had the wis-

dom to implement a training program that has such a dramatic effect on how teachers teach and students learn.Thanks for your good work!

Joe Chase, Supervisor
Master Technology Teacher Program
Houston Independent School District

Educator preparation programs and alternative certification programs were approved to provide opportunities for educators to meet the Technology Applications and Master Technology Teacher standards and receive the new certificates. For additional teacher technology standards and certificate information, visit www.sbec.state.tx.us

Number of Entities Offering Technology Applications Certificates Through Educator Preparation Programs	
Technology Applications EC-12	28
Technology Applications 8-12	44
Computer Science 8-12	45
Master Technology Teacher EC-12	14

Source: SBEC

Professional Development for Educational Technology

Educators have many professional development opportunities for the effective use of technology in education. These opportunities are available through school districts, the twenty Education Service Centers (ESCs), professional organizations, higher education institutions, private and public entities, and others. On-going professional development includes:
hands-on experiences with technology,
workshops,
online experiences,
collaboration with other educators, and
college courses.

The content of professional development is critical to the expansion of teacher knowledge and skills in the area of curriculum integration.

Information from the Campus STaR Chart provides data on the type of professional development offered by Texas schools.

Texas Campus STaR Chart Data for Column J, Models of Professional Development	
I. Early Tech Most at entry or adoption stage—Educators move from the initial learning of technology basics to successful use of technology on a basic level (e.g., integration of drill and practice software into instruction).	771
II. Developing Tech Most at adaptation stage—Educators move from basic use of technology to discovery of its potential for increased productivity (e.g., use of word processors for student writing and Internet research).	2,529
III. Advanced Tech Most at appropriation stage—Having achieved complete mastery over technology, educators use it effortlessly as a tool to accomplish a variety of instructional and management tasks.	3,450
IV. Target Tech Most at invention stage-- Educators are prepared to develop entirely new learning environments that utilize technology as a flexible tool. Learning becomes more collaborative, interactive and customized.	436

Source: 2003-2004 STaR Chart

Professional Development Frameworks

The current and future health of America's 21st Century Economy depends directly on how broadly and deeply Americans reach a new level of literacy – 21st Century Literacy – that includes strong academic skills, thinking, reasoning, teamwork skills, and proficiency in using technology.
National Alliance of Business, 2000, Building America's 21st Century Workforce

Technology Applications standards for students in grades K-12 are a required part of the enrichment curriculum specified in the Texas Education Code. The Texas Essential Knowledge and Skills (TEKS) focus on the teaching, learning and integration of digital technology skills across all curriculum areas, at all grade levels in a continuum of knowledge and skills. The Technology Applications TEKS for Grades K-8 are not taught as separate instructional activities. Instead, they are addressed as integral to all content areas. In addition to the infusion of technology throughout the secondary core curriculum, specific Technology Applications courses are offered at the high school level. These courses prepare students to use digital technologies for numerous learning purposes, such as desktop publishing and web mastering.

In September of 2002, the Texas Education Agency in conjunction with the ESC Technology Task Force began developing a series of frameworks for professional development in Technology Applications. The purpose of the frameworks was to ensure equitable access to uniform professional development and communications tools to educators statewide. The frameworks are based on the belief that schools should support technology literacy and technology integration by incorporating 21st century skills into the K-12 curriculum.

Framework goals are to:

- improve student achievement by supporting student technology literacy and technology integration across the curriculum;
- prepare educators to meet State Board for Educator Certification standards in Technology Applications; and
- provide statewide access to professional development designed for Technology Applications teachers.

Recent research substantiates the need for statewide professional development frameworks in Technology Applications. A report released in September of 2002 from the Texas Center for Educational Research indicates that Texas teachers have increased their technology proficiency over the past five years. While teachers are making strides in incorporating the use of technology in their classrooms, most do not feel they are using technology as an integral part of the teaching and learning process. Historically, technology related professional development has concentrated more on basic technology use than curricular integration. Additional training in the effective use of classroom technology remains a significant need for Texas teachers.

Professional development frameworks have been developed to meet the needs of two target audiences: classroom teachers and campus technologists in grades K-8 and selected High School Technology Applications course teachers. The key components of the frameworks are:

- K-8 Technology Integration Academies;
- High School Technology Course Academies;
- Technology Applications Teacher Network website; and
- Technology Applications Teacher Network "best practices" sharing events

K-8 Technology Academies

The Technology Application Academies provide comprehensive, standardized teacher training models for technology applications professional development. Individual K-8 Technology Integration Academies have been developed for teachers in grades K-2, 3-5, and 6-8 in math and science, as well as language arts and social studies. The four academies provide a statewide sys-

tem of staff development workshops for elementary and middle school teachers designed to improve student performance and increase technology integration in core content instruction. The K-8 academies were developed to include practical, research-based strategies that can be used to integrate technology into the daily curriculum.

Common elements were studied to develop the four K-8 academies including a research review and an analysis of critical issues such as copyright and media literacy. Classroom management techniques for one-computer classrooms as well as those with multiple technologies were also considered. Both the core content area and Technology Applications TEKS and the correlation between the two were examined. The availability of classroom technology resources was also discussed.

The resulting on-line training resource package describes best practices, TEKS-based projects that focus on specific grade levels. The package consists of an Academy Manager's guide, module lesson plans, internet links, activity sheets, instructor notes, and an instructor presentation. Model technology integration activity solutions are also included. The academies are designed to be modular so they may be delivered in multiple formats ranging from a back-to-back two day academy, an academy conducted during two separate days or a series of individual training modules conducted over time.

High School Technology Applications Course Academies

Academies for the high school technology applications courses were developed to meet the needs of teachers in courses with changing requirements and those new courses initially being offered in schools recently. Currently, there are eight high school Technology Applications courses, which include:

- Computer Science I
- Computer Science II
- Desktop Publishing
- Digital Graphics and Animation
- Multimedia
- Video Technology
- Web Mastering
- Independent Study

The Technology Applications courses with the greatest number of teachers are Computer Science I and II. An academy was designed to assist these teachers in the transition to Java programming, as required by the Advance Placement examination. Academies were also developed for Web Mastering, Desktop Publishing and Multimedia as these three courses reflected the greatest increase in growth as determined by student enrollment.

The 9-12 academies provide a statewide system of staff development workshops created to improve student performance in selected courses designed to meet the technology requirement for graduation. The high school course academies are based on classroom-tested strategies that can be used to teach real world, industry standard technology applications. The on-line training package consists of daily agendas, sample course outlines, scope and sequence, recommended resources, concepts and terminology, projects and evaluation rubrics. The 9-12 academies are designed to be modular and can be conducted in continuous three or more day formats, as well as through a series of individual training components that can be distributed over time as needed. Opportunities for on-line instruction are also included.

Both the K-8 and 9-12 academies were developed by writing teams composed of content area and subject matter experts from schools. Members of the Education Service Center Technology Task Force were involved in the review process. Academy materials will be distributed electronically through the Technology Applications Teacher Network web site. As the academies are online, they will be continually modified and improved based on feedback from schools.

The components of the professional development framework were designed to interconnect with each other by promoting statewide access

to resources and preventing duplication of efforts for both trainers and teachers. The professional development frameworks also coordinate closely with national and state education initiatives, such as No Child Left Behind (NCLB). In addition to the improvement of student achievement through technology, the frameworks help:

- integrate technology effectively into the curriculum;
- enhance ongoing professional development of teachers;
- ensure that every student is technology literate by the end of the 8th grade; and
- encourage the effective integration of technology resources with teacher training and curriculum development

The professional development frameworks correlate with other initiatives including Learning for the 21st Century, the State Educational Technology Directors Association Toolkit, TARGET, the Texas STaR chart, and the *Long Range Plan for Technology, 1996-2010*.

Two tools have been designed to facilitate the implementation of the professional development frameworks. The Technology Applications Teacher Network website and the Best Practices Sharing Events have been developed to support participation by educators statewide in the initial use and ongoing enhancement of the academies.

Technology Applications Teacher Network

The Technology Applications Teacher Network website (TATN) makes available statewide all materials for the Technology Applications academies. Additionally, each of the Education Service Centers provides relevant information including contact names, certification offerings and specific events related to the academies in their geographic area. The TATN website also contains discussion boards to encourage dialogue among educators across the state. The website includes the model classroom lessons, resources, activities and assessment rubrics from both the K-8 and 9-12 academies. Videos, lesson plans and project resources generated from Best Practices Sharing Events are distributed through the website.

Best Practices Sharing Events

A final component of the professional development frameworks is the Best Practices Sharing Events. On February 4, 2003, as part of the Texas Computer Educator Association's (TCEA) annual conference, a 9-12 Technology Applications Teacher Network day for high school technology applications teachers was held. The purpose of the day was to organize a statewide network of technology applications teachers to promote the exchange of model instructional practices for grades 9-12. Master high school educators presented over fifty sessions to highlight student projects, lesson planning, assessment rubrics and other key curriculum issues. Two hundred teachers attended sessions in Computer Science, Desktop Publishing, Digital Graphics and Animation, Multimedia, Web Mastering and Video Technology. Many of the master teachers who presented were included on the writing teams of the 9-12 academies. The shared resources and video clips are available on the TATN website. The event was also used to announce the official kick-off of the TATN website.

The second annual Technology Applications Best Practices Teacher Network Event was held in February 2004 and expanded to grades K-12. This second TCEA pre-conference event highlighted 75 exemplary teachers from across the state. Over 300 teachers attended this event. Teachers shared lesson plans, student projects, and assessment rubrics used to implement the Technology Applications TEKS in their classrooms. The third annual Technology Applications Teacher Network Best Practices Event is scheduled for February 8, 2005 at the Austin Convention Center during the TCEA Convention. Overall, there are many districts, universities, professional organizations, and businesses that provide professional development focusing on Technology Applications.

Additional Professional Development Opportunities

Education Service Centers

The Education Service Centers provide support, professional development, and technical assistance for districts in using technology in schools. They assist teachers in meeting the SBEC Technology Applications standards. Through the support of ESCs, district personnel received hands-on experience and orientation to state of the art technologies, as well as professional development on planning strategies and the integration of technology into the teaching and learning process. Technology workshops, institutes, videoconferencing sessions, online instruction, and other professional development opportunities were offered through the ESCs.

Education Service Centers provided training in technology integration to 64,682 educators during 2003-2004.

ESCs focus on No Child Left Behind, Title II, Part D Enhancing Education with Technology priorities to develop educators able to transparently integrate technology into curriculum and instruction. As a result, technology professional development is one of the most important services provided by ESCs. Each ESC provides on-going, high quality professional development to meet the varied needs of the teachers, principals, and administrators in its service area. In addition to the technology professional development offered by each ESC throughout the year, customized training can be provided to meet the specific learning needs of individual school districts.

Educators seeking to develop or refine technology literacy knowledge and skills may work through a continuum of courses which include application utilization, effective use of Internet resources, as well as, the integration of technology into the curriculum and instruction. In addition, several Education Services Centers offer technology applications and master technology teacher certification courses. Funds provided by the state for ESCs were cut due to budget shortfalls. Services continue from the ESCs, but in many cases they are scaled down. More information on technology services provided by the ESCs is available at www.tea.state.tx.us/technology/esc.

Teacher Technology Competencies Certification

Begun as part of the Regional Technology Integration Initiative, TTCC became *TexasTTCC* in September, 2003. The Education Service Centers of Texas joined ESC Region 11 to offer a method for teachers to demonstrate their technology proficiency that would be recognized statewide. *TexasTTCC* also provides districts a method to document the level of expertise of their staffs to the community, the Texas Education Agency, and others who require accountability that state technology standards are met.

The Texas Teacher Technology Competencies Certification (*TexasTTCC*) is a performance-based assessment program for current teachers which is recognized and endorsed by participating districts. It is based on State Board for Educator Certification Technology Applications Standards 1-IV. These are the Technology Applications standards expected of all beginning

teachers in Texas. Technology Applications skills are emphasized in SBEC standards I-IV. The primary focus of SBEC standard V is that the teacher can successfully integrate technology into curriculum and instruction. These basic standards are correlated to International Society for Technology in Education NETS (National Educational Technology Standards) for teachers and the Texas STaR Chart key areas of Teaching and Learning and Educator Preparation and Development.

Through *TexasTTCC*, teachers demonstrate the technology knowledge and skills they have acquired through professional development and classroom experience.

TTCC Components

Online Discussion Session

During this four-week session, participants become acquainted with the tools used for online discussions and the procedures for portfolio preparation and submission. Upon successful completion of the Online Discussion Session, one of the seven required portfolio artifacts will be complete and entered into the *TexasTTCC* electronic portfolio and 27 of the 73 sections of the SBEC Technology Applications Standards I-V will be met.

Portfolio-Centered Assessment

The electronic portfolio requires seven standards-based artifacts, each of which includes a caption explaining how each portfolio item addresses the standards.

District Verification by Principal

Inclusion of the Principal's letter in the portfolio provides district verification of the teacher's integration of technology.

Link to Learn

The Link to Learn project, funded by the Telecommunications Infrastructure Fund Board (TIFB), was designed to ensure that all citizens of Texas communities, especially K-12 students, were provided the information and skills to effectively use information resources available through the common databases of the Texas Library Connection (TLC) provided by TEA and TexShare provided by the Texas State Library and Archives Commission (TSLAC). To accomplish this goal, TEA, in coordination with Education Service Centers Region 12 and Region 20 developed training modules and delivered training to public library staff, volunteers, and public school librarians.

This staff development project was implemented through a train-the-trainers model and was supported by on-line training modules and materials. These modules included orientation to the TEKS, information acquisition searching strategies, homework assistance strategies, the common databases of TLC, TexShare and Smart Start e-learning modules. The Smart Start modules were linked from the TLC Information Center and were designed for students, parents, teachers, and librarians.

When TLC was no longer funded by the legislature, TexShare resources were reduced, and TIFB was closed, this project came to an end. The Link to Learn project successfully brought together public school and public librarians to better work together to support K-12 students. Over one thousand attendees participated in the Link to Learn training sessions, and many others participated in the e-learning modules and web resources. Many valuable partnerships were made possible as a result of this project, and librarians were given new knowledge and skills to better assist students in meeting curriculum expectations.

Educator Preparation and Development through NCLB

Much progress has been made to prepare Texas educators to become technology literate and proficient in integrating technology across the curriculum. More professional development is moving schools to the Advanced Tech and Target Tech levels of the Texas STaR Chart. This is due in part to the requirement that at least 25% of NCLB Title II, Part D funds must be used for professional development.

Formula Funding

Title II, Part D Funds are distributed by both formula and competitive grants. Districts receive Title II, Part D formula funds based on the percentage received for Title I, Part A. Districts received formula funding in amounts ranging from less than $20 to more than $2 million each year of the program.

The predominant use of formula funds was for professional development in the integration of technology.

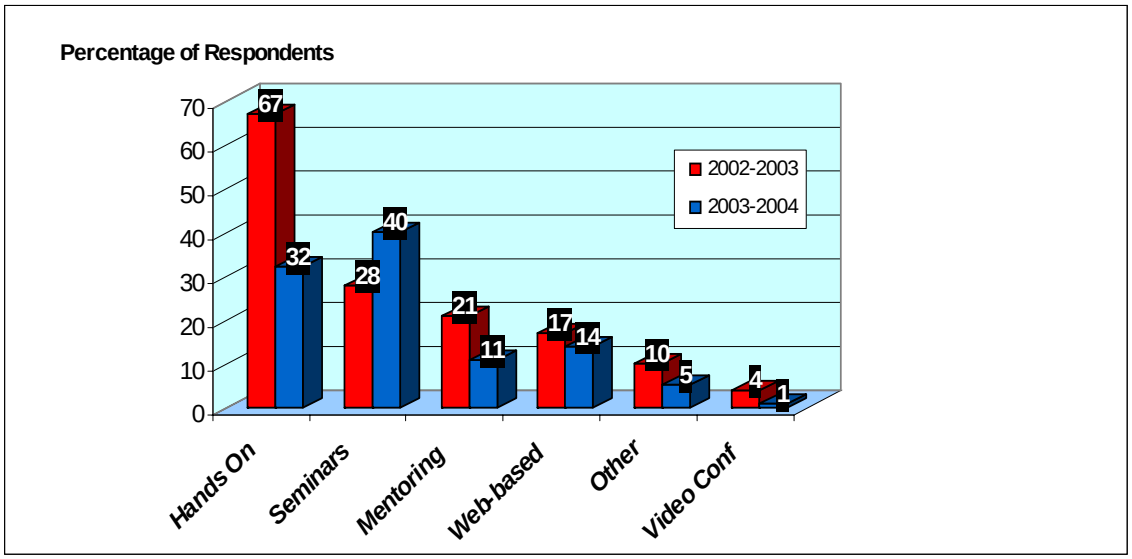
Professional Development Delivery Methods

Respondents report professional development in the following areas:

- hands-on workshops;
- seminars;
- mentoring;
- web-based;
- other; and
- videoconference.

In 2002 – 2003 the majority of the districts delivered professional development through a more traditional approach of hands on workshops (67 percent). In 2003 – 2004 the hands on workshop dropped dramatically while seminars rose from 28 percent to 40 percent which indicates a trend toward maximizing the amount of participants for training. Most of the self-reported 'other' choices indicated specific technical training such as online professional development, installation and training services, and computer trouble shooting.

TYPES OF DELIVERY METHODS



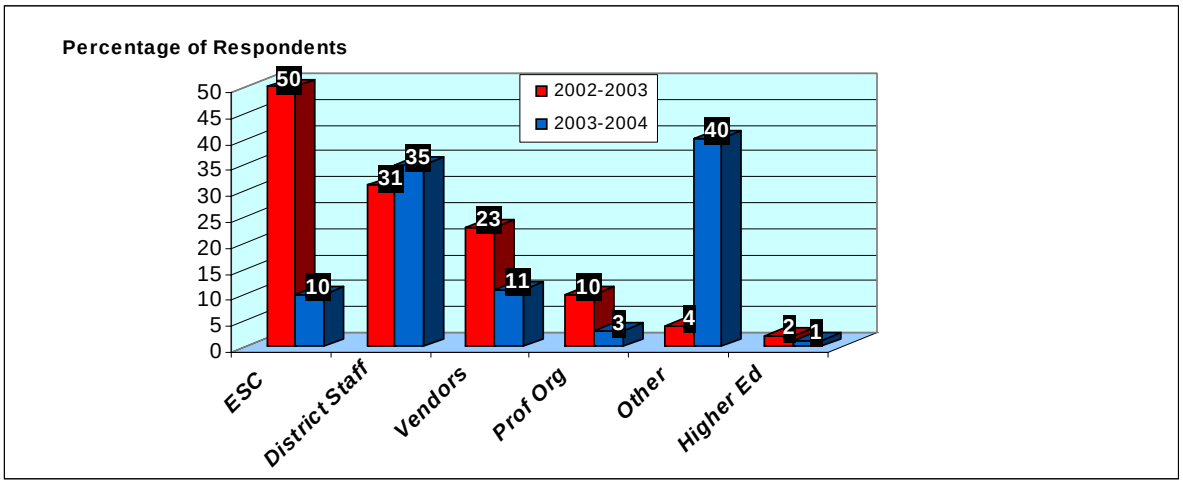
Professional Development Providers

Districts reported professional development providers in the following areas:

- Education Service Centers;
- district staff;
- vendors;
- professional organizations;
- other; and
- higher education

The Education Service Centers (ESCs) provided 50% of the districts with professional development services in 2002 – 2003; however, a strong shift in direction was evident when the support to the Education Service Centers dropped due to the legislative shortfall. The self reported 'other' category took a steep climb in 2003 – 2004. Respondents primarily listed providers as consultants, online training, or from another district.

PROFESSIONAL DEVELOPMENT PROVIDERS



Competitive Funding

The **TARGET** Grants (**T**echnology **A**pplications **R**eadiness **G**rants for **E**mpowering **T**exas students and teachers) began in January 2003 and focus on serving high need students at the local level. The primary purpose of these grants is to prepare teachers for the Technology Applications instructional materials adoption. The majority of the materials adopted by the State Board of Education for grades K-12 have electronic components, including online and CD-ROM lessons as activities. Over $24 million was available for TARGET 1 and over $26 million for TARGET 2 grants. With these grants, 25 to 97 percent of the funds were used for professional development with the average at nearly 50 percent.

Examples include the Laredo ISD and Plano ISD partnership in which the TARGET grant provides funds for training middle school teachers to acquire the skills, knowledge and strategies necessary to integrate technology into the curricula and instruction. Teachers will develop an individualized Technology Growth Plan (TGP) to assist in targeting professional development activities to their specific needs. Teachers will access technology rich curriculum for use specifically with at-risk students and increase parental involvement. The TARGET grant also provided funds to continue to provide state-of-the-art technologies (e.g. computers, Internet access, and software), professional development, technology trainers and technicians for teachers and students to ensure student success.

In La Joya ISD, all four middle schools use technology in support of student learning in key content areas. Teachers received laptops and a variety of technologies for classroom use. All administrators, counselors, librarians, and teachers participate in an intense process for professional development. Online professional development with the Mexican Consulate is also included.

The ESC Region 7 TARGET consortium of 15 districts will enable participating districts to improve student academic achievement through a three-pronged approach that will focus on creating learner-centered classroom environments through the institution of proven professional development models and long-term mentoring; enhancement of infrastructure and introduction of emerging technologies, and improved technical support capabilities.

The overall strategy of the TARGET grant for Region 8 and 46 districts is to target educators from high need campuses in at least 18 months of continuous, sustained professional development that results in teachers' use of new, research-based strategies and methods to integrate technology in the classroom through standards-based content. Depending on the grades in a given district's middle grades, the project will target teachers in grades 5, 6, or 7 in the first project year.

The Targeting Assistance and Resources to Grow and Equip Teachers and Students (TARGETS) program is a Region 11 consortium of 10 districts with a three-pronged approach to technology integration that provides a comprehensive system of administrative, instructional, and technical support. Principals, instructional technology integration specialists, and campus technical assistants are critical to the success of this program.

Hillsboro ISD used TARGET grant funds to acquire wireless laptops and hand-held technologies, curriculum and assessment resources and to provide professional development. Summer Technology Integration camp and distance learning courses modeled effective integration strategies and increased attainment of SBEC proficiencies.

Region 13 and 33 districts will use this TARGET project to promote curricula and teaching strategies that integrate technology effectively into social studies curricula and instruction in grades 6-8. The comprehensive staff development strategies include a variety of individual and group activities to meet specific identified needs and leverage distance learning technologies as well as in-person training institutes. Electronic portfolios will be the primary tool for the documentation of individual teacher's progress toward goals for improving teaching and learning.

All K-12 teachers in the 21 districts participating in the Region 14 TARGET grant have access to professional development to acquire skills necessary to develop and/or access content for web-based curriculum, instructional materials, lesson design, and web page design for any content area. Middle school teachers participate in advanced training for web course design focusing on integrating Technology Applications TEKS into core content areas and post the units of study for access by all teachers in the program.

The Ysleta ISD TARGET program targets teachers in grades K, 3, and 6 in nineteen campuses the first year to provide a professional development model with tools and skills to integrate technology to support student learning across the curriculum, coupled with customized training. Funds from this TARGET grant will provide additional equipment to libraries and extend library hours.

The collaborative, led by Poteet ISD will use the Pathways to Advance Virtual Education (PAVE) initiative to provide educators with appropriate technological skills and knowledge to ensure students achieve academic success. With a focus on elementary schools, the project plans to provide 110 teachers with professional development opportunities that lead toward a masters degree in curriculum and instruction with an instructional technology specialization.