

Technology Professional Development for CT Educators: A Policy Brief

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The time is right for Connecticut to develop a coordinated approach to technology professional development. Though more needs to be done, we are making progress in equipping and wiring the state's K-12 classrooms. There are now widely accepted national technology competency standards for both teachers and students on which to build planned, systematic, and ongoing professional development programs. The undisputed importance of technology and information in creating the "New Economy" is generating real momentum for action across the public and private sectors. And a revised CT Statewide Technology Plan will be adopted this spring.

To capitalize on this momentum, Connecticut's work to promote the technology competence of our K-12 educators must focus on three main areas: (1) program and content, (2) organizational structure and capacity, and (3) financing. We provide below a short list of principles and findings that may be helpful in framing this issue over the next several months.

A. Developing A Program for Professional Development

1. Training needs to be comprehensive yet flexible.

Several states are moving to hands-on training programs for teachers that run 50 to 60 hours. (CT's current requirement is for 15 hours and is tied to the renewal of certification.) Teachers who demonstrate existing competence should be able to exempt out and be channeled into trainer and mentor roles.

2. Training needs to be based on clear competency standards that progress from basic skill acquisition to deep curriculum integration, based on Connecticut's curriculum standards.

The RESC Alliance standards and national ISTE teacher competency standards must be the basis for the training curriculum, while continually pointing participants back to the academic standards in their area of expertise. A realistic assessment process must also accompany the refinement and publication of clear competence standards for educators.

3. Training needs to accommodate teachers' schedules.

Summer institutes and Saturday workshops are the most effective times for comprehensive training programs.

4. Teacher training time and accomplishment needs to be honored.

Programs in other states recognize that teachers need to be compensated for their time in some way (e.g., through stipends, keeping equipment at the end of the program, earning duty release time, or other means). A process for recognizing and rewarding excellence in this arena should be implemented for the 2000-01 school year and should include the participation of business as well as traditional educational entities (e.g., schools, boards of education, teacher unions, statewide educational associations and state government).

5. Training needs to be supported by on-line resources.

Curricula and support materials should be available through a well-designed, content-rich web site. This will allow educators access on a 24/7 basis in addition to the initial professional development

experience. Access to this support material implies that educators have both in-school and at-home access to the Internet.

6. Training needs to be sustained over time with strong collegial mentoring.

Teams of “tech-able” teachers should be established to provide ongoing follow-up throughout the year of initial training and in subsequent years. Teachers who are extraordinarily skilled in the use of technology for classroom learning and who, by virtue of their daily activity, act as mentors to less-skilled teachers must be encouraged and recognized.

7. Connecticut’s technology professional development program must be evaluated.

SDE’s Technology Office (see below) as a member of the proposed, new “Single Authority on Education and Technology” should develop evaluation criteria to assess program impact.

B. Statewide Organizational Structure and Capacity

1. To provide appropriate support, the SDE Technology Office needs to be expanded.

According to Charles Lovett, Program Manager of the Technology Literacy Challenge Fund at the U.S. Department of Education, states leading the way in Technology Professional Development are those with strong, coordinating entities. As one example, Louisiana established the Louisiana Center for Educational Technology (LCET) as the state leadership group within its Education Department to facilitate collaboration among districts, RESCs, and private and nonprofit sector technology initiatives. LCET coordinates professional development curricula, program delivery, program evaluation, follow-up activities such as mentoring programs, and a wide range of other activities guided by the state’s technology plan.

2. A strategic plan needs to be developed to reach ALL of the state’s educators (i.e., teachers, administrators and support staff) with the program by the end of 2005.

The Technology Office at SDE, in conjunction with the proposed Single Authority for Education and Technology, the RESCs and local districts, should determine criteria for reaching all teachers over the next five years. This plan must take into account retirements as well as the high number of new, younger teachers coming into the profession during this time.

3. There must be adequate numbers of technology specialists at the district and RESC level, to assure that available hardware and software actually works in the classroom.

Research indicates that one barrier to active technology use by educators is the simple fact that hardware and software does not always work. While all educators should acquire basic proficiency in the use of classroom hardware, it is a school and district responsibility to assure that the “tools” of technology (i.e., hardware, software and networks) work reliably. At present, some CT districts have several technology support staff while 30% lack even a single full-time staff person.

C. Financing

1. CT’s statewide technology professional development program requires a five-year funding horizon.

As one of the most widely respected research studies of educational technology infusion states, “technology integration is a slow process,” that requires long-term funding. [“Factors that Affect Effective Use of Technology for Teaching and Learning: Lesson Learned” published by the SEIR*TEC Consortium] Far from being one- or two-year initiatives, effective professional development *and* meaningful evaluation of impact occur over several years.

2. The first two years of the five-year period should be front-loaded to build capacity and develop a rigorous evaluation protocol.

Substantial early resources must be targeted to the development of program design, logistics, and evaluation, with a plan to level off continued funding in years 3 and 4. Funding for year 5 should be increased again to support analysis and dissemination of evaluation findings. Over this period, reliance on federal funds for training should be reduced and funding built into operational budgets at the state, regional and local levels.

3. Professional development resources should come from the state as well as from federal and local funds.

Relying only on the federal Technology Literacy Challenge Fund to finance the state's contribution to technology training is a risky and limiting strategy. Because professional development in technology requires on-going and predictable support, the state should make a commitment to provide a set percentage of its overall general funds technology budget for the professional development program. Districts viewed as leaders in technology use allocate up to 30% of their technology budgets for professional development.

4. Connecticut should seek an increase in its federal technology funding.

Connecticut needs to become much more aggressive in seeking new federal funding for technology. SDE should seek larger grants from the three main federal technology programs: Technology Literacy Challenge Fund (TLCF), Technology Innovation Challenge Grant (TICG) and Preparing Tomorrow's Teachers to Use Technology (PT3). There are currently 225 PT3 grants across the country, none of which are in Connecticut. State seed money should be provided to post-secondary institutions, RESCs, and other consortia for the development of PT3 proposals.

5. Connecticut should work to establish a Private Sector Challenge Grant process.

Many states enjoy major corporate support of their technology efforts. From Idaho to New Jersey, state leaders have been successful in securing multi-million dollar contributions from corporations and state and national foundations. Connecticut's proposed Single Authority, in partnership with the SDE Technology Office and the Governor's Council on Economic Competitiveness and Technology, should develop initiatives with entities such as CBIA, SACIA, regional chambers of commerce, and the CT Technology Council to match state funding for its technology professional development program.

A Final Note: Connecticut now ranks 5th best in the nation on measures of the "New Economy." Nationally and in Connecticut, information technology (IT) is both the engine and the fuel for this new economic growth.

For most of the 20th century, the vitality of the US economy was determined by the success of its major manufacturing industries. Today information, technology, communications, and intellectual capital, rather than energy and raw materials, power business.

By 2006, "knowledge jobs" will account for 1/3 of the nation's economy, and 49% of all private sector employees will work in industries that produce or are heavy users of IT equipment or services. Yet, today, Connecticut ranks 42nd among all states in the infusion of technology in our classrooms. The investment we continue to make in hardware, software and networks must be accompanied by an ongoing and substantial investment in our K-12 teaching force.

There is no time to delay.