

Laptops for Learning

“Early last century, technological advance required workers with a higher level of cognitive skills—for instance the ability to read manuals, to interpret blueprints, or to understand formulas.

“Our educational system responded: In the 1920s and 1930s, high school enrollment in this country expanded rapidly, pulling youth from rural areas, where opportunities were limited, into more productive occupations in business and broadening the skills of students to meet the needs of an advancing manufacturing sector. It became the job of these institutions to prepare students for work life.

“But in the past two decades, our system has had obvious strains, apparently reflecting an inability of our workforce to fully meet the ever-increasing skill requirements of an economy whose GDP is becoming more conceptual.

“We need to be forward looking in order to adapt our educational system to the evolving needs of the economy and the realities of our changing society. Those efforts will require the collaboration of policymakers, education experts, and—importantly—our citizens. It is an effort that should not be postponed.” (Alan Greenspan, chairman, Board of Governors of the Federal Reserve System, February 20, 2004)

As Mr. Greenspan points out, the challenge to educate a workforce prepared to meet the increasing skill requirements of the 21st century is complex and requires the collaboration of many segments of society. It also is a challenge that cannot be postponed. Fortunately, there is a clear path to provide the needed 21st century skills and technological literacy to Florida students. Mobile, wireless computing, for the first time, makes it practical to empower all students with the cognitive tools they will need to compete in the new world economy. The dated textbooks of a past century can no longer guarantee student success in school or in life. We must prepare our students to become lifelong learners in a world of increasingly fast-paced change.

As Florida considers implementing one-to-one technology for our students, we need to consider carefully the lessons learned from similar initiatives in other states, identify potential barriers to success, and recommend a direction that will be cost effective and have the greatest impact for transforming teaching and learning in our state.

A number of other states have pilot or full-scale projects implementing one-to-one computing with their students. Some projects are across an entire grade level, some are by school or district, and some are classroom by classroom. From hundreds of classrooms participating in such projects we hear consistently positive reports. We also hear of many lessons learned. Projects have regularly underestimated the need for quality professional development. The least successful projects have simply dropped hardware into classrooms.

Compared to other states, Florida is well positioned to begin an effective one-to-one laptop program. We have many online resources created by districts that can be shared statewide. We have up-to-date

information about the readiness of each of our schools. We have an excellent pattern of communication and cooperation between state agencies and the districts. And we have substantial expertise within the state from districts that have already begun one-to-one programs. In comparison with other states, Florida has the necessary prerequisites for a successful program.

Extremely successful pilot programs have already been implemented in Florida. For example, a current program in Manatee County involves 22 classrooms ranging from elementary through high school. After just one year of implementation, dramatic results have been observed. Teachers

are teaching differently and students are markedly more engaged in their work. Student work has improved in quality, classroom space has been maximized, and absences have declined nearly 40% among students with laptops. While many might be satisfied with such results alone, the Task Force believes that by standing on the shoulders of those programs that have gone before, we can design a one-to-one program that will even surpass the successes currently enjoyed in Manatee and other counties.

The members of the Task Force, although all advocates for the use of technology, are agreed that hardware alone cannot bring about change in our schools. Experience has taught us that a holistic approach is always required for success in any technology rollout. All members of the Task Force are well aware that a successful implementation must address many concerns: the needs of teachers, students, administrators and parents; curriculum integration and teaching styles; infrastructure; support; economics; and sustainability.

The members of the Task Force believe that all students can learn given access to the proper tools. We believe that teaching and learning must transform to prepare students for a rapidly changing world. And we believe that access to the same level of technology common in the business world is essential for student achievement.

We can no longer even imagine a world of work where executives, engineers, secretaries, and salespeople all wait at their desks for a once-a-week opportunity to use a computer lab at the end of the hall. The days of students waiting for their turn with technology tools must likewise end. The tools for learning must be available where students work, not in a special room at the end of the hall.

Technology alone is not the answer to the challenges facing education in the 21st century. But with technology, our schools and teachers can leverage resources, individualize instruction, and open the door to lifelong learning opportunities for all of Florida's students.

The question is not "Can we afford to equip our children for life and learning in the 21st century?" The question is "How can we afford not to do so?"

