

Integrated Technology Curricula Drive Student Retention and Success

School districts leverage popular software and technologies to stem increases in dropout rates and teach students valuable workplace skills



By Bob Regan

Director of Worldwide K-12 Education, Adobe Systems Incorporated

I recently heard a colleague liken the experience of being a student in school today to that of someone riding in an airplane: You have to turn off your phone, unplug everything you care about, and stare straight ahead for hours. In an age when the economy—and many student interactions—are increasingly digital, our schools are becoming disconnected from the world our students know and are falling behind in preparing students for the workforce. For many students, the result is that they are simply unbuckling their seatbelts and walking off the aircraft.

Today's dropout rates are staggering. A recent study published by America's Promise Alliance cited that only 53% of youth in the 50 largest U.S. cities graduate from high school on time. It is a devastating statistic that—as administrators of schools large and small know all too well—seriously impacts youth and society in general. It also has major effects on districts, as they experience continued funding cuts because fewer students are attending their schools.

A study done by researchers at Texas A&M University found that Texas school districts could lose up to \$1.1 billion in state funding because of declining enrollments. At a district level, these impacts can be severe. For example, after 104 students dropped out of the graduating class of 2007, the Longview Independent School District in Texas lost approximately \$558,000 in state funding. Like the Texas schools, districts across the U.S. are actively taking on this problem.

"One of the biggest challenges today is keeping students in school," says Jana Hambruch, project director at the School District of Lee County in Florida. "Discussions about improving education or funding opportunities are essential, but they mean nothing to a student who drops out. We need to keep students engaged and devise strategies that make learning more meaningful and relevant to them."

Building on student interests

In the report, "The Silent Epidemic: Perspectives of High School Dropouts," researchers found that 47 percent of students who dropped out said they did so primarily because they felt their classes were not interesting. Other reasons students gave for leaving school were that they thought their classes had no connection to skills or activities they would need after graduation.



Some of the most shocking statistics in this report were that 88% of the students had passing grades upon leaving school, and 58% dropped out with just two years or less to complete high school. The reality is that students are not flunking out. They are getting up and leaving due to disinterest, low expectations, doubts about the value of what they are learning—or a combination of all those things.

In a report released by the State Educational Technology Directors Association (SETDA), *Focus on Technology Integration in America's Schools*, it was noted that by effectively integrating technology, districts saw significant improvements in student retention, achievement, and teacher quality. In high-need districts, the high school graduation rate increased as much as 14%. More than simply making school "exciting," the use of technology has a measurable impact on student test scores in math and reading, the report notes.

From this perspective, the value of effectively integrating technology into curricula is apparent. In the U.S., the availability of Race to the Top funds is currently driving even greater innovation and reforms at schools. To better engage students, district administrators are exploring new programs that enhance student outcomes and give them essential design, development, and communication skills that will serve them long after graduation. The aim is to appeal to students' penchant for technology and desire for real-world skills by teaching them how to use the software that business and creative professionals rely on daily.

State and district leaders have been looking at technology-rich programs, and in particular at career-focused programs, to bridge the chasm between student interests, the real world, and our schools.

Real returns from CTE

Success at the School District of Lee County in Florida highlights the opportunities. Several years ago, educators in Fort Myers, Florida, became concerned that Lee County was not effectively reaching all of its students. They set out to create a program that would prepare high school students to excel in a society built on information and technology. "We believed that an exciting program focused on technology would entice students to stay in school," says Hambruch. "It would also produce well-qualified graduates with skills to pursue high-paying technical careers."

To help achieve its goals, Lee County School District in 2005 opened the Academy for Technology Excellence (ATE) at Dunbar High School, a public magnet school in Fort Myers. ATE complements Dunbar's Center for Math and Science and offers hands-on courses taught by IT-certified instructors. Teachers and students can complete Microsoft software certifications, as well as entry-level and advanced certifications on Adobe's industry-standard creative solutions.

"The impact of the program far exceeded our expectations," says Hambruch. "ATE students have an enthusiasm for learning that carries over to subjects beyond technology. We've seen our standardized test scores increase above state and district averages, as well as an increase in our graduation rates since inception of our ATE program." Currently, Lee County is looking to expand industry certification programs to other district high schools, and perhaps even to middle schools.

In Florida, school districts can receive \$1,200 (through the Perkins Fund) for every student passing the ACA assessment. For schools, this can be a windfall, considering per-student funding in some districts averages \$5,000 annually. Of course, students benefit as well, coming away with skills that can translate after graduation into jobs they feel passionate about.

Taking a global view

The focus on enhancing the quality of technical education available to students can be seen around the world. Earlier this year in Australia, the New South Wales (NSW) Department of Education and Training invested approximately \$20 million dollars (Australian) in Adobe solutions. The software will be provided to more than 741,000 NSW government K-12 students and 50,000 K-12 teachers, as well as to more than 500,000 students and 10,000 of their teachers in high-quality job training programs.



The rollout of Adobe software is part of a much larger Australian government initiative called the Digital Education Revolution, which also includes providing students and teachers with laptops, expanded wireless capabilities, and additional software. The aim is to transform teaching and learning in Australia by giving students the skills to live and work in a digital world.

"NSW public schools lead the nation in providing computer resources, giving our teachers and our young people the vital skills they need to help them succeed in our IT-savvy world," said NSW Premier Nathan Rees. "The combination of the laptops and the software contracts we have signed will open our classrooms up to the world. Using this software, students will be able to create videos, edit photos, and make presentations for class assignments and projects."

The efforts in NSW further enhance CTE in schools across the state, while aiding overall technology integration into everyday coursework. Students can use creative software to visually communicate and interpret complex ideas across a range of subjects. For example, students in history classes can develop interactive timelines and recreate significant historical events through dynamic, digital scenes. Or, science students can capture images of experiments, analyze details, and add visual elements to bring greater clarity to their findings.

Pathways to success

The importance of balancing student interests with proven educational approaches is more important than ever today. With so much competition for students' attention, it makes sense to incorporate ways of learning and working that reflect their lives inside and outside of school. For educators, discussions about enhancing student creativity, strengthening problem-solving skills, or teaching students to work alone or as part of a team are nothing new. What is changing is the effectiveness of the tools available to achieve these goals.

"It's about making education more relevant and even useful to students," says Hambruch. "We want students to have pathways to careers they aspire to—so they are excited about what they are learning today and can see how these creative and problem-solving skills will serve them tomorrow."

* Statistic from *Cities in Crisis 2009: Closing the Graduation Gap*; Prepared for America's Promise Alliance by the Editorial Projects in Education Research Center.

* From "The ABCD's of Texas Education: Assessing the Benefits and Costs of Reducing the Dropout Rate." The Bush School of Government and Public Service, Texas A&M University—report commissioned by the United Ways of Texas.

* From "The Silent Epidemic: Perspectives of High School Dropouts." A report by Civic Enterprises in association with Peter D. Hart Research Associates for the Bill & Melinda Gates Foundation. By John M. Bridgeland, John J. Dilulio Jr., and Karen Burke Morison.



Adobe Systems Incorporated
345 Park Avenue
San Jose, CA 95110-2704
USA
www.adobe.com

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