



Teachers and touch-screens

Used with a colorful new world of educational apps, iPads and similar devices are transforming O.C. classrooms.

To a teacher like Brandee Ramirez, one of the quickest ways to transform a classroom is to introduce iPads.

"I have never seen so many kids so engaged, all at the same time," Ramirez says. "It's just the excitement. They really light up. They know this. This is how they learn."

Ramirez has become a digital learning coach in her school district, Tustin Unified, where she now spends her days coaching elementary school teachers like herself on how to transform their classrooms with technology.

"You have to keep kids engaged, and this is the number one way to do it," she says. "It almost comes naturally when they have a tablet in their hands."

Tablet devices such as iPads — along with other computers — are transforming the face of public education. In Orange County, perhaps there is no more obvious place to see its impact than in Tustin schools, which launched a district-wide effort to get 15,000 tablet computers into the hands of its students this school year.

Tustin students in kindergarten through fourth grade will share a single tablet per three children, while those in grades five through eight will be assigned their own iPad to use 24 hours a day, seven days a week, says Crystal Turner, Tustin's assistant superintendent for Administrative Services. Meanwhile, Tustin's high schools are piloting the use of iPads and Toshiba laptops.

"The level of student engagement is off the charts," Turner says. "It's catching on so quickly. The kids love using these devices."

The transformation happening in Tustin was made possible by the \$135 million Measure S school bond, which

IN 2013, 36 PERCENT OF THE PRINCIPALS SURVEYED IN ONE STUDY SAID THEY WOULD ALLOW STUDENTS TO BRING THEIR OWN DIGITAL DEVICES TO SCHOOL, UP FROM 22 PERCENT IN 2010. — SOURCE: SPEAK UP: AN INITIATIVE OF PROJECT TOMORROW

passed in 2012 to provide more technology in schools. In addition to iPads, the district has also installed Wi-Fi in all of its schools and interactive smart boards in classrooms.

Tustin Unified is also investing heavily in teacher training. Thirteen digital learning coaches, including Ramirez, have left their regular teaching posts for two years to instruct other teachers on how to best use new technologies in their classrooms.

"If teachers aren't trained, technology can be a little scary," Ramirez says. "Sometimes the kids know more than the teachers. That's OK. Using these devices brings a different way of teaching — one that's student-centered versus teacher-centered."

Parents who aren't sold on the value of tablets in classrooms probably don't know how they are being used, Turner says.

"One common misconception that people have is that students are going to use the devices at school like they do at home," she says. (This includes playing games, watching YouTube clips and streaming Netflix movies.)

Instead, Turner says educators are relying on applications such as "Kahoots," a student-response system that allows teachers — or even the students themselves — to create their own quizzes on any subject of their choosing. Teachers can pose a question to their class and, instead of just hearing from one student chosen to answer aloud, she can ask everyone to answer on his or her device and get immediate feedback about the answer.

"We really want students to have an opportunity to answer every time," Turner says.

Teachers will get a better picture of how well their students understand the material, so they can go over it again if necessary.

The devices also offer opportunities for personalized learning, allowing advanced students to work ahead.

"The idea of an individual device is hugely powerful for student learning," says Mike Lawrence, executive director of the California nonprofit group Computer-Using Educators. "Whenever you get student-centered learning, you see amazing results. They're able to

create their own content and publish it. That powerful learning is huge."

But deploying tablets into schools is no easy undertaking. Not only are they costly — an iPad sells for more than \$600 — many schools lack the digital networks to support them.

"The power of iPads and other tablet devices is based on their connectivity," Lawrence says. Without Wi-Fi at a student's school or home, they are ineffective.

President Barack Obama is spearheading ConnectED, a national initiative to usher 99 percent of America's students into the digital age through broadband and high-speed wireless connections in their schools and libraries.

Some educators still resist the use of technology in schools. For example, the Waldorf educational approach strictly limits technology, eschewing iPads and other computers and instead teaching students how to concentrate deeply and master human interaction, critical thinking, creativity and problem-solving skills.

But there is another driving factor causing schools to invest in technology. New state assessment tests — called Smarter Balance in California — are administered by computer. That factor is driving many schools to invest in tablets, or Chromebook Web-enabled laptops that cost about \$250 each, so their students can take the tests, Lawrence says.

Parents may have the idea that curricula can be provided more cheaply with iPads than with textbooks, but that's incorrect. While books are updated only with each new printing, digital textbooks are updated more often. A digital curriculum also requires high-resolution images that can be much more costly to obtain, Lawrence says.

Educators agree that tablets are only a tool for teachers and students to use. It still takes a good teacher to make the learning magic happen.

"Technology isn't going to take the place of the teacher," Ramirez says. "Technology is a tool that can really enhance learning and education, and lead us further into the 21st century. It's the teacher and students who count the most."

"The more experiences our students have with technology, the better off they're going to be in the future," Lawrence says. ☺

Digital learning at home

Whether or not your child uses a digital device at school, parents can support their learning at home with the family's iPad or other tablet.

Parents should encourage the use of digital applications that focus on creativity as a teaching mode. For example, instead of just having your child watch a movie on Netflix on your iPad, get him connected with apps such as "Movie" or "Animoto," so he can make his own movie, says Crystal Turner, assistant superintendent for Administrative Services at the Tustin Unified School District.

"Your little one can take five pictures of things that start with the letter he is learning that week," Turner says. "The writing can be the soundtrack. He can put it all together and make a video about the letter of the week."

By using "Comic Life," another app that Turner likes, kids can create their own comics. The important thing, she says, is "to put more focus on creativity and not on 'one-way' resources, where a child is just watching something."

Tustin Unified digital learning coach Brandee Ramirez says that parents can often start with their school district's website to find quality apps and programs to work with. One of the first digital tools she recommends is "Educreations," an application that turns an iPad into a recordable whiteboard so students or teachers can create their own video lessons.

Another app recommended for elementary age children is "Cargo-Bot," an iPad game designed to teach kids the underlying principles of computer programming, says Mike Lawrence, executive director of Computer-Using Educators [cue.org], a California nonprofit group that supports the educational technology community.

The national nonprofit group Common Sense Media [commonsensemedia.org] keeps an extensive database of apps and games that have been independently reviewed by educators, Lawrence says.

"It's almost like a consumer digest for media," he says. "Parents can search the database to find out which apps are most appropriate for which ages and find its 'Learning Rating,' a gauge of how well it draws in and teaches children."

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