

Third-graders take on keyboard challenge

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Kaiser Elementary 3rd graders practice their typing skills in the school's computer lab.

Third-grader Tycho Sedlachek throws his hands up victoriously as he finishes his typing test. It shows he has improved his score for accuracy and speed, and that's good news, since he and his peers at Kaiser Elementary in Oakland need to know how to type by this spring.

The reason: For the first time in California's history, millions of students will take the Smarter Balanced online assessments that will measure how well they are doing on curriculum aligned with the Common Core, the new academic standards in math and English language arts being implemented by California and 42 other states.

Even 3rd-graders – the youngest students taking the tests – will be expected to type on a keyboard and navigate and complete the online tests.

While many educators across the state feel confident that their youngest students will be prepared to take the assessments, others are concerned that the test may be a struggle for the youngest test takers in part because they do not have the keyboard, computer and navigational skills older students may already have acquired.

During the field test of the Smarter Balanced assessments last spring, Jeannie Jentzen, who teaches at Pioneer Elementary in Amador County Unified, said, "100 percent" of her 3rd-graders had problems typing. "It was tears, frustration, quitting, and my kids aren't quitters."

Younger children may be further disadvantaged if they lack computers or Internet at home or attend schools with limited access to using a keyboard and computer. School districts are responding in a variety of ways to help students overcome the online challenges they must face.

The extent to which these challenges will affect students' scores is just one of many factors California schools will be dealing with as they enter largely uncharted territory implementing the Common Core State Standards and gearing up to administer the Smarter Balanced assessments beginning next month.

Unlike the annual pencil-and-paper multiple-choice tests that students have taken for the past 15 years – [the California Standards Tests](#) – this spring's Smarter Balanced assessments will require

students to manipulate a computer mouse to scroll up and down a page, drag and drop items and write essay questions.

Students in the Kaiser Elementary typing class have been learning typing since the beginning of the school year. “T-Y-T-Y-T-Y-T-Y-T-Y,” sings out 3rd-grader Daisy Fountaine as she practices those two letters on the online typing program called “[typing web](#).” Instructor Aaron Hinde claps his hands together several times and the students join in unison. “Do we have our fingers on the home row?” he calls out. “Yes!” they respond, as he intones “and that is: A, S, D, F, J, K L, semi-colon!”

Kaiser Elementary principal Kathrene Hatzke said that 3rd-grade students at her school have been using computers at school since they were in kindergarten. But they hadn’t had any formal typing classes until this year, when the school decided it was important to provide specific instruction in typing to prepare for the upcoming Smarter Balanced assessments and generally for use with online materials they use in their classes. Hinde, who has held jobs in computer technology, was hired part-time to offer typing classes once a week to all of Kaiser’s students.

Without typing skills, the new assessments could be difficult for younger students.

“There has been some hesitancy in the field to have 3rd-graders take the test online because of concern that the interface is too complex,” said Walter Way, vice president and head of Assessment Solutions & Design at Pearson, a major curriculum publisher. “They may not understand what the tests are asking them to do because they’re unfamiliar with it.” If those students don’t have access to technology at a young age, Way continued, “when they get to the 3rd-grade test, it could put them at a disadvantage.”

Thomas Hurst, the technology coordinator for the El Tejon Unified School District in southern Kern County, recalled how 3rd-graders in his schools struggled during the field test given to students last spring.

“Just the simple act of logging in became part of the test,” he said, adding that the district’s youngest test takers had trouble typing the 10-digit identification number they had been assigned to log into the new assessment – along with finding the hyphen on the keyboard that was part of the number. Hurst also said that many students at his district’s schools in the heart of the Central Valley do not have Internet access or computers at home.

Data from the most recent American Community Survey showed that 41 percent of households in the city of Fresno did not have DSL, cable modem or fiber optic connections. In the entire state, some 2,241,815 California households – 17 percent – had [no Internet access](#).

“Technology is a critical tool for our next generation to succeed in the global economy, and it starts with a computer and Internet at home,” said Sunne Wright McPeak, the executive director

of the California Emerging Technology Fund. “School-improvement initiatives, including Common Core Standards and Smarter Balanced Assessments, require students to be proficient in using a computer, and those without a device and Internet at home are being left behind at an accelerating pace.”

“If children are expected to write, which they are, those with weaker keyboarding skills will be disadvantaged – and there are a lot of reasons for that,” said Carol Connor, a professor in the department of psychology at Arizona State University. “Parents may be anti-technology, or their parents may not have computers, or their schools may not have computers or kids spend an hour once a week working on computers.”

Connor has developed online assessments for students as young as kindergarten age and said that to perform well on these assessments, students have to be familiar with computers and be able to write on a keyboard. In a study she and colleagues conducted with high school students, she said, one of the key findings was that students without keyboarding skills were better off taking the test on paper.

A coalition of 20 civil rights organizations, including the NAACP and the National Council of La Raza, recently expressed concerns about this issue, and called on Congress as it comes up with a replacement for the No Child Left Behind law to “allow, during a transition period, alternatives to computer-based assessment for students in schools that have not yet provided them with sufficient access to, and experience with, the required technology.”

School officials in a number of districts around the state are offering a variety of ways for young students to become computer literate, which they hope will result in sufficient competency to take the Smarter Balanced assessments.

- The Fresno Unified School District has trained a dozen teachers how to teach computer skills and typing. The district produced [videos](#) of those teachers demonstrating and describing those skills in the classroom, and have used them to train other teachers throughout the district, including those teaching the earlier grades.
- In the Santa Ana Unified School District, 3rd-graders get an hour each week of typing instruction. In addition, they use computers with keyboards to do research in the classroom, and their parents can check out computers that provide students with Internet access at home.
- The Garden Grove Unified School District spent \$5 million to revamp all of its hardware in its elementary schools. As part of that effort, it offered technology training to teachers and has offered monthly meetings with technology leaders at each school to make sure teachers are on track in preparation for the Smarter Balanced assessments.
- The Visalia Unified School District has added 6,000 Chromebooks, with several thousand more on the way. It’s also offering technology training for teachers and help from coaches assigned to each grade level, including 3rd-graders. The district has

encouraged teachers to have their students publish online and practice the [Typing Club](#) web program.

Jeannie Jentzen, who teaches at Pioneer Elementary, part of the Amador County Unified School District, worries that her students don't have the necessary typing skills to handle the new assessments. Jentzen said that in 3rd grade students are still learning how to find the right words to express ideas. "Then to ask them to synthesize at a very high level and put it in typewritten answers is near to impossible," she said.

Her students do get an hour of typing instruction in the computer lab weekly, but also hand write in journals regularly. During the field test of the Smarter Balanced assessments last spring, Jentzen said, "100 percent" of her 3rd-graders had problems typing. "It was tears, frustration, quitting and my kids aren't quitters," she said.

"I am not sure most 3rd-graders are ready to handle an all-computer-based test," said Irvine Unified School District teacher Kelly Tyndale. "Typing is crucial but in the age of the (touch screen) tablet, fewer kids are coming in knowing it. With limited computer lab times, learning keyboarding gets thrown into the mix of taking assessments, learning activities (websites or educational programs) and publishing writing."

The same is true for Laura Bolton's 3rd-graders at William Saroyan Elementary School in Fresno's Central Unified School District. They do their work on tablets, which they know how to use well, but the tablets don't have keyboards.

That means when Bolton gives typing assignments, and students type on the screen of their tablets, they're often baffled, Bolton said. "They're little," she said. "They don't understand how to shift to make a capital letter, or that you don't need spaces before you make a period on the computer. Getting a cursor in the right place, and having to delete something doesn't sound like a big deal, but for an 8-year-old, it is."

But with the extra training they are receiving, Oakland principal Hatzke feels her young students should be able to manage the technology part of the Smarter Balanced assessments. The harder part will be the content of the test, she said.

"We still have time to get them ready for using the technology," she said. "I think it's going to be OK."