

Schools try giving SAT via computer

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High school students in Darien, Conn., and 12 other communities are taking part in a potentially groundbreaking pilot program, using computers to take a college admissions test previously administered by old-fashioned pencil-and-paper methods.

Twenty Darien High School juniors took the Scholastic Assessment Test (SAT) on January 27, but they didn't have to worry about bringing their sharpened No. 2 pencils to fill in the little ovals on their score sheets.

Darien is one of 13 high schools from across the country taking part in the pilot program. The trial will help the College Board, the administrator of the SAT, determine the feasibility of offering a computerized test to all students.

The students' scores on the pilot computer test won't count on their records.

"Unless there's some sort of breakthrough in technology, it's at least five or maybe 10 years before large numbers of students use computers to take the SAT," said Brian O'Reilly, executive director of the College Board's SAT program.

Even so, the College Board acknowledges that computer-based administration of the SAT is inevitable some day. The pilot aims to identify what challenges this would create.

"The pilot will try to look at what problems there would be if high schools gave the test on computers," O'Reilly said. "What is the feasibility? What are the issues?"

The computer-based SAT is all mouse-driven. "There are no keystrokes, and the kids don't have to know how to word process or anything. They just click on the ellipse that corresponds with the correct answer," said Jerry Seen, director of guidance for grades 6 to 12 at Darien Public Schools.

The test administered at Darien also included a tutorial portion showing kids how to use the mouse.

Advantages of computerized SATs

One advantage the computerized SAT has over the pencil-and-paper version is the instant calculation of students' scores, Seen said.

"The most important advantage to computerized testing is that it keeps students from pacing in front of the mailbox. This way, you know your score before you walk out the door," he said.

But there are other advantages to computerizing the SAT, Seen said.

"When a student comes in and logs on, [he or she] can begin right away. When breaks come, normally everyone has to sit there and wait for the next section to begin—but this way, if a child is ready to move on, [he or she] can do so," he said. "Web-based testing means you're not tied down to the momentum of standardized testing."

Seen also believes that a computer-administered test may cut down on accidental errors.

"With a computer, you can't bubble in the wrong section, because you only have one question at a time. And mis-numbering can't happen, either, because only one section is present at a time," he said.

The computerized test also gives students an option to put a check mark next to questions they intend to go back to, and it provides students with an on-screen calculator.

"You can also check the time still available," Seen said. "There's a countdown timer in the upper left-hand corner of the screen, but if a student is distracted by that, it can be hidden."

Less complication may be better for kids' test-taking morale, school officials believe.

"There is less angst and grief because it is very difficult to mess this up. There's no paper, so nothing can be lost, and kids can't walk out with booklets on accident," said Seen.

Computerized testing could open up a lot of possibilities for adapting tests to kids with learning disabilities and different learning styles, he added.

"Audio learners could take the test with headphones on, and we could use larger-print texts for student with sight problems," he said. "Also, some kids get additional time on the SAT because of learning disabilities, and with the computerized version [this extra time] can be programmed right in. Right now, the proctor has to keep track of all that."

Security concerns and other challenges

Though many administrators worry about the increased chance of cheating with computerized tests, Seen believes that computerized testing will not make cheating any easier, assuming the computers in test rooms are placed strategically.

"The way our test room is arranged, you'd have to stand right behind someone to see what they were doing," he said. "We have a high-tech lab with the computer screens embedded in the desks, so you have to look down through the glass panel to view the monitor."

According to Seen, there is also little chance of students sneaking back to work on a previous section of the test. Currently, proctors have to walk around and make sure students are working on the section they are supposed to be. With a computerized test, once the computer times out on a section, there's no going back.

The pilot test at Darien was delivered on a diskette, but O'Reilly said the College Board has not ruled out web-based delivery in the future.

Both educators and test administrators admit the web-based transfer of delicate information raises serious security concerns, however.

"I'm told there are ways to effectively safeguard against hacking; encryption and firewalls, things like that," said O'Reilly. "Clearly, security is a concern for us. As the administrators of the test, we have an obligation to protect our intellectual capital."

But, he added, "It is almost a moot point, because if you make the size of the pool of test questions large enough, even if you had access to the pool, you still wouldn't know which of the thousands of questions would be randomly selected for your test."

Another key issue is whether high schools have enough computers to administer the test.

Darien High School has only 20 computers in its technology lab, Seen said.

"That's certainly not optimal testing conditions, since a large test may have 300 to 400 students being tested at one time," he said.

Districts must use relatively high-powered computers to administer the test, but Seen does not believe the technology requirements would be prohibitive.

"You need a fairly modern computer to do this, but you don't need a 500- or 600-megahertz computer or anything like that," he said.

But, Seen acknowledged there are still problems that must be overcome before the paradigm shift can occur.

"Honestly, I think the new thought might be to abandon the mass testing approach altogether," he said. That way, test-takers could sign up for the test and take it when they felt ready.

"It could really reduce long lines and nervous kids," he said.

Administering the SAT via computer would enable students to take the test whenever they wanted.

"But then the question is, would the school be willing to give up class time to administer the test? Could students take the test after school? If so, who would stay after school to help administer the test?" O'Reilly said.

Despite the possibilities for computerizing the SAT, the College Board believes it will be years before the program changes over to completely electronic.

"It's not the technology end that we are worried about, it's the practical considerations involved with changing a test taken by 2.5 million students per year," O'Reilly said.

Feedback from the pilot

Student feedback at Darien High School indicated that the pilot was mostly a success, according to Seen.

"Of the students who've taken this so far, I think 75 [percent] or 80 percent have said they prefer this to a paper-and-pencil test," he said. "The only complaints we received were about not being able to doodle in the test booklet. With some geometry problems, kids like to draw on the booklets, and with the computerized test they have to reproduce the problem onto scrap paper to do that."

O'Reilly said he doubts the SAT will ever be administered through the internet to an individual student, but he believes it is possible to deliver the test to an entire school through the web.

"[A computerized SAT] is definitely coming. There are just too many benefits," he said.

O'Reilly believes that computer technology could allow test administrators to ask more open-ended questions.

"Right now, to score essay questions you have to fly a group of teachers to a central spot, get them rooms, and have them all sit down to go over the essays," he said. "Theoretically, if a student composed an essay electronically, it could immediately be sent to the scorer, and that person could very quickly score the essay at a much-reduced cost."

Seen believes a computerized SAT would be a boon for schools "because we're talking about a whole generation of kids who've grown up in front of a computer screen. They are comfortable there, and there is less regimentation with the computerized test."

Besides Darien High School, schools in California, Colorado, Delaware, Florida, Illinois, New Jersey, New York, Ohio, Texas, Vermont, and Virginia either have participated or are scheduled to participate in the pilot by March 3.