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Preparing for Success with Online Assessments

Perspectives on K-12 Education Technology

Summary

With the move to state-mandated online assessments beginning in 2014, the role of the education CIO continues to evolve. In the new era of online assessments, education CIOs have a unique ability to directly influence testing outcomes. Decisions about hardware, network infrastructure, professional development, and community outreach have never been more important. With mandated testing rapidly approaching, savvy education CIOs are already hard at work laying the foundation for success.

Lay a strong foundation

Education CIOs have long presided over the hardware and infrastructure implementation decisions in their districts, balancing tight budgets with growing technology needs. In the era of online assessments, these decisions become increasingly complex.

Schools need devices that can support both daily learning and online testing requirements. Many districts are experimenting with desktop computers, laptops, netbooks, and tablets to determine the form factors and specifications that meet minimum test requirements and work best for their students.

"Our hardware choices become ever more important in the age of online testing," explains Fred Harlan, Director of Technology for the Ritenour School District in Missouri. "Regardless of how well they know the material, students with high-end computers with big screens and comfortable keyboards that are sitting in quiet rooms with reliable and fast Internet connections may have a competitive advantage."

Even so, some districts are finding that increasing exposure to technology can help level the playing field. "We've been testing online for 13 years," explains Robert Young, Director of Technology for Fredericksburg City Schools. "This will be the first year that we use tablets for testing, and we're confident that they will be successful. Our students have been using tablets throughout the year. We haven't noticed any difference in testing simulations."

IT directors must also ensure that their wireless infrastructure and processes are built to support a high quality of service for online testing. Secure, high-bandwidth networks, redundant local data caching, increased access points, and load testing can all help provide the resiliency districts need to support online assessments.

And with classroom technology and personal devices already taxing school networks, now may be the perfect time for districts to upgrade their wireless infrastructures to accommodate increasingly heavy loads. "Students will bring technology to school," explains Harlan. "You can't have 15 smartphones all streaming Pandora and no bandwidth for testing."

Case Study

Wasatch County School District

PROFILE

The Wasatch County School District is located just outside of Salt Lake City, Utah. Eight schools in the district serve 5,600 students. Led by Technology Director Karl Buchanan, the district is in the early stages of a one-to-one digital conversion that will soon provide every student with a netbook, laptop, or tablet in the classroom.

WHAT THEY DID

Wasatch started online assessments 11 years ago and has been testing all grade levels online for the last six years with Pearson and Measured Progress on Acer netbooks. The district is slated to begin using SAGE, the state's new online assessment system, in the 2013-2014 school year.

WHY IT WORKED

- **Scheduling.** Buchanan believes that success depends on careful planning and scheduling—particularly if resources are tight. "We always go back and check our schedules so they don't bring two classes in at the same time," says Buchanan.
- **Practice.** Before each test, Buchanan and his team perform load tests using kiosk files. "You can't assume that things are going to work on the day of the test," he adds. "We always test our connections to make sure they're solid."
- **Persistence.** Testing wasn't always as smooth for the district as it is now. "At first we had outages with our test delivery systems," says Buchanan. But by keeping up with the latest wireless technology and devices, upgrading and adding access points, and switching to high-bandwidth fiber, Buchanan has virtually eliminated the outages that once affected the district. "Our infrastructure is now the most painless part of testing," he says.
- **Parent involvement.** With an extremely connected community, Wasatch keeps support for online assessment high by keeping parents well informed about upcoming testing.

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Tim Goree
Director of Technology Support Services
Fairfield-Suisun Unified School District in California

Be prepared

Today, the responsibilities of the education CIO don't end at the infrastructure. Education CIOs must also plan for and execute smooth operations on test days with careful planning, staffing, and scheduling.

"Students know that there is a huge emphasis on standardized testing," says Jon Carrino, Technology Services Supervisor for the William S. Hart Union High School District in California. "Unplanned interruptions or delays can stress them out and throw them off. The environment needs to be carefully constructed for maximum stability."

Districts that have piloted online testing or have been doing online testing for years know the importance of having spare accessories, such as batteries, headphones, keyboards, and mice. When the Ritenour School District participated in a Smarter Balanced pilot in April 2013, Fred Harlan quickly discovered that checking the volume on all devices prior to testing is a small but critical detail. To enable sound during the test, students must exit the test and log back in with the authorization of the teacher. In a real testing situation, Harlan cautions, such interruptions could cost students precious minutes or invalidate test results, requiring students to be tested again.

In Georgia's DeKalb County School District, CIO Gary Brantley believes that scheduling can be just as important as the hardware, the software, and the platform. With over 100,000 students in the district, making sure that no two classes are scheduled to use the same devices at the same time and that there are enough technical assistants in the building to support testing is one of Brantley's top priorities.

Think beyond the test

Even with the right devices, infrastructure, and environment, students that have mastered the curriculum may struggle if they have not also mastered the technology. Providing students with opportunities to work with the technology throughout the year can improve students' speed and reduce opportunities for error on test day.

"Exposure to technology has a significant impact on testing," says Jim Klein, Director of Information Services and Technology for the Saugus Union School District in California. "Our strategy is to get kids working with keyboards at least a year before they're required to test with them so they can hit the ground running."

Many districts are also adopting more frequent online testing and using practice tests to prepare students for the twice-yearly state assessments. Gary Brantley of DeKalb County Schools is doing both. Teachers in Brantley's district leverage a bank of more than 35,000 practice exams from Pearson to help students stay confident with the technology and process between testing periods.

Frequent online testing can help prepare students to handle more than just the technology. Benchmark tests and practice tests can provide districts, schools, and teachers with rapid access to data that highlights areas in need of improvement and aligns to programs that offer courses for immediate remediation.

Case Study

Fredericksburg City Public Schools

PROFILE

Fredericksburg City Public Schools serves 3,270 students in the City of Fredericksburg, Virginia. The district has five schools: one elementary school, one upper-elementary school, one middle school, one high school, and one early childhood center.

WHAT THEY DID

Fredericksburg has been successfully testing online with a variety of devices, including Acer ICONIA Windows® tablets, for the past 13 years. Schools and teachers can get raw scores within 24 hours to quickly identify which students are in need of remediation before retaking the tests.

WHY IT WORKED

- **Incremental rollout.** As early adopters of online assessment, Virginia began with an incremental rollout, starting with English and adding a new subject each year. "Over time, we were able to standardize the test environment and work out all of the kinks," says Young.
- **Teacher commitment.** Online assessment has gained the support of teachers and administrators throughout Virginia who are embracing the tests for the data they produce.
- **Frequent practice.** Students are exposed to technology every day and required to master technology standards of learning by 8th grade. Several times a year, teachers take students through test simulations with mock online training centers and practice tests to prepare them for test day. Students also take online tests throughout the year for state benchmark assessments.
- **Professional development.** "One of the categories used in evaluating our teachers is effective use of technology," says Young. "The state has funded instructional technology resource teachers (ITRTs) that work directly with teachers to help them develop lessons that integrate technology."

Drive professional development

Online testing represents a significant paradigm shift for teachers. At a minimum, teachers need to be able to help students navigate the test and provide assistance with resolving minor issues. However, some IT directors, such as Tim Goree, Director of Technology Support Services for the Fairfield-Suisun Unified School District in California, encourage districts to set their sights beyond simply enabling technology-based testing.

The ultimate goal, says Goree, should be technology-enabled learning. "Most of the training that we do for teachers is very prescriptive," says Goree. "We spend hours training teachers to use a specific application or device. We could do the same for testing training, but right now the focus in our district is on getting teachers to be confident integrating technology into their classrooms."

Goree points out that most professional development infrastructures do not have the resources to turn every teacher into a technology expert. "Our objective," he says, "should be to help teachers develop basic skills that enable them to do just-in-time professional development on their own. We need teachers to be able to model the common core technology standards that we expect of our students."

For Goree, that means that teachers, as well as students, should be able to:

- Use technology and digital media strategically and capably
- Employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use
- Tailor their searches online to acquire useful information efficiently and integrate what they've learned online with what they've learned offline
- Understand the strengths and limitations of various technological tools and media and use the tools best-suited to their communication goals

In California's Saugus Union School District, Jim Klein is taking a similar approach, making the most of limited resources by building a scalable community that includes

KEYS TO SUCCESS

- **Lay the foundation.** Make sure your infrastructure and devices are prepared to handle the requirements of each test. Test your wireless infrastructure, try different devices to find what works best for your students and your test, and make sure that you have enough devices to complete all testing during the testing window.
- **Drive professional development.** Stretch IT resources by helping teachers build confidence in their ability to integrate technology into their classrooms. Basic skills, such as effectively searching the Internet and building professional learning networks, can prepare them to manage their own just-in-time professional development.
- **Start small.** Roll out testing incrementally if possible, starting with non-high-stakes testing.
- **Think big.** Make online testing a part of a greater goal to develop tech savvy students and teachers.
- **Create allies in the community.** Communicate often with parents and members of the community to help students stay connected to technology outside of school.
- **Build relationships.** Building relationships with teachers and administrators is a great way to remind them of the growing importance of IT to student success and testing outcomes.

teachers, students, and trained technology mentors at every school site. Klein's mentoring program trains one teacher from every school site on the latest tools and technologies. When they return to their schools, mentors are given opportunities to collaborate with other teachers during the school day.

Create allies

Communicating with parents and surrounding communities is critical to securing support at home and in the community. Steady communication with parents about upcoming testing schedules, online tools, practice tests, and other resources can help make parents your allies.

"Parents who are aware of testing resources may be able to provide opportunities for their children to get online to take practice tests," says DeKalb CIO Gary Brantley. "It's a great way for parents to get involved and participate with their children."

Brantley believes that communicating with members of the community is another way that IT directors can help set students up for success outside of the classroom. In districts where children may not have access to WiFi at home, local businesses that offer free WiFi can perform a public service and may see an uptick in business from students coming in to get online.

Build relationships

With a wide range of factors to consider, IT directors are in the best position to make informed decisions about device and infrastructure requirements for both classroom use and online assessments.

"Testing is putting IT on the radar," continues Brantley. "It's an opportunity to get a seat at the table where board-level decisions are being made. As a CIO or IT Director, we all have just two options: We can drive change or we can manage the change that is headed our way."

GETTING STARTED

1. Reach out to other districts in your testing consortium to learn more about their experiences with testing pilot programs.
2. Meet with your administrators and district leaders to share with them your findings on how IT can influence testing outcomes.
3. Survey local establishments in your area to understand students' access to the Internet outside of school. Let students know where they can find free wireless access for practice testing.
4. Communicate with parents about low-income Internet programs and other ways to get connected.