

## Issue Brief

# Digital Readiness for the Common Core State Standards

How K-12 schools can leverage digital content, assessment technology and professional development for successful standards implementation.

## Common Core State Standards: Are You Prepared?

Under the Common Core State Standards (CCSS), the first formal assessments for English language arts and math are scheduled for mid-2014. With less than a year to go, K-12 districts are accelerating their preparations to make sure each school's network and computing infrastructure is ready for the higher levels of activity associated with the required online delivery of the CCSS assessments. In addition, school leaders must ensure teachers have access to CCSS-aligned digital content and technology — and that they are effective in using it to improve student success.

As school leaders know, this is no small order. It can be helpful to consider the implementation of the CCSS over the course of the complete academic cycle of teaching, learning, benchmarking and assessment. In particular, consider how the digital aspects of Common Core impact:

- **Infrastructure.** School networks need to have enough bandwidth to accommodate hundreds, if not thousands, of simultaneous online test takers. Students will need access to technology — computers, laptops and tablets — that meets minimum CCSS requirements for online assessment.
- **Content for teaching and learning.** Teachers need to adopt new teaching styles and digital resources. Learning activities need to be personalized and collaborative. Perhaps most importantly, digital content and curricula must be aligned to and support the instruction and rigor required by the new standards. Ideally, teachers will have access to content that is written specifically to support CCSS.
- **Assessment and student progress.** School districts will need to use formative assessments to track student progress throughout the year, and adapt instruction as needed to address identified learning gaps.
- **Skill development.** Students should be skilled in using computers or tablets to find, use and create digital content to prepare for CCSS summative assessments. Teachers should have the knowledge, skills and resources needed to adopt new forms of instruction.

"Technology is no longer an add-on to classroom instruction," says Rose-Ann McKernan, executive director of instructional accountability for Albuquerque Public Schools in New Mexico.<sup>1</sup> "It's now essential for all of the learning that leads up to the Common Core assessments. The assessments will help teachers learn *how* to teach better, instead of focusing so much on *what* to teach, which is specified by the standards. The CCSS assessments will really help us elevate what students learn."



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ROSE-ANN MCKERNAN, EXECUTIVE DIRECTOR OF INSTRUCTIONAL ACCOUNTABILITY, ALBUQUERQUE PUBLIC SCHOOLS, NEW MEXICO

## First Things First: Solid Infrastructure

The CCSS requirements for simultaneous delivery of summative assessments clearly have the potential to place a tremendous burden on a school's technology infrastructure. And as the curricula at all grade levels evolve to include more digital content and activities for students, it's easy to see that many districts will need to make significant upgrades in computing devices, Wi-Fi coverage and capacity, and bandwidth.

One positive factor to remember when planning these upgrades: The technology that's required for the assessments also benefits learning activities year round. "More importantly than their use for assessments, the tablets we use provide equity of access to learning for students and they allow our teachers to offer more personalized instruction every day," says Dr. Laurel Ashlock, assistant superintendent and chief academic officer for Central Unified School District (CUSD) in Fresno, Calif.<sup>2</sup>

The table below lists key technology infrastructure elements to address in a district's Common Core plans.

Technology Element	Planning Factors for CCSS Implementation
Wireless networks and Internet bandwidth 	Is the network capacity adequate and the network design sufficiently robust to support the peak demand during the assessment times, as well as increased traffic from digital learning throughout the academic year?
Security and privacy 	Do current security solutions offer the network and device control required for administering the assessments? Do you have a management solution for the devices that will be used in each school for learning and testing? Do you have access controls for what a student can see and do online, and that will protect student privacy?
Desktops, laptops and tablets 	Have you standardized on one type of device or created clear guidelines about device selection if schools make their own choices or if students are permitted to bring their own devices? Have you trained IT and school staff on device support?
Learning management systems and digital content platforms 	How will the district manage access to all of the digital content, internal learning tools, student assignments and other online materials that will come with a more connected, collaborative and interactive classroom?
Tools for interim testing 	Do you want to develop your own formative assessments? Have you evaluated the testing resources offered by content publishers?

Often overlooked in CCSS plans are tools for data analytics. Analytics provide highly valuable information for teachers, principals, curriculum specialists and district administrators. Combining results from interim tests with other student learning data, analytics tools help measure student progress against the CCSS and benchmark individual schools and classes against district and grade-level goals. The formative assessments that occur throughout the year also deliver data that helps teachers improve instruction immediately.

## Choosing and Using Digital Content

The skills emphasized by CCSS — particularly writing, speaking and listening — point to learning activities that emphasize use of digital learning materials, for example, interactive eTextbooks that support student collaboration, content production and peer review.



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"Prior to 2010, as a district we didn't really have a clearly adopted core curriculum," says Dr. Steve Tietjen, superintendent of Los Banos Unified School District in California. "We had adopted California State standards, but how teachers covered the content was up to them. There wasn't a common core curriculum foundation across the district. We had standards, but how teachers addressed the standards was up to them."<sup>3</sup>

In 2010, Los Banos adopted the new Common Core standards and committed to teaching to the standards the way they were designed. The district worked with a digital content publisher, which Tietjen says has made an "incredible impact." "There is no debate about the curriculum — it is high-quality curriculum being taught across all classrooms," says Tietjen.

Tietjen says a huge benefit of working with digital content is that it is never outdated, which is particularly important in history and science, where content is constantly changing. "As we work with our publishers, the digital textbooks are being updated as the content changes," Tietjen says. "If a new version comes out, the publishing company will immediately push it out to districts that have purchased the content. The whole notion of updating content is what our children are going to expect because that's what happens daily with their smartphones. This is the way children are thinking today and we have to find a way to accommodate that."

The right digital content platform will help students develop these skills at the same time they are gaining subject knowledge. With the CCSS in mind, digital content publishers and application providers are all increasing their product and service offerings, striving to meet the needs of school districts for more content and lesson planning options.

## Preparing for the Assessments

The simultaneous testing requirement of the CCSS presents a significant logistics challenge to schools. "The key question for assessment is how do we avoid interrupting instruction and still maintain a good testing environment?" says McKernan. Because Albuquerque Public Schools will need to rely on computer labs for testing, administrators decided to schedule a "dry run" in spring 2013 to practice the process and identify potential problems. Another important factor in this scheduling practice was identifying how learning could stay on target for the students who would not be able to access the computer labs during the testing period.

The deadline for delivering the summative assessments is also a reason to start technology improvements now, says Tietjen. "I'm concerned that if students don't have the chance to learn the devices and testing methodology beforehand, they'll have that much more of a barrier to overcome when the time comes for the assessments." Tietjen recommends districts start now in preparing and not to wait to get devices in students' hands.

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UNIFIED SCHOOL DISTRICT,  
CALIFORNIA

## The Human Impact: Professional Development for Teachers

For successful CCSS implementation, professional development for teachers, principals and district instructional specialists is just as important as improved technology infrastructure and new digital content.

"Many teachers have been used to direct instruction methods and the idea of teaching with technology and integrating lessons across content areas is a challenge for them," says Ashlock. "That's why we've focused on building the capacity of the teachers first, so they can be ready to support students when the tablets are distributed in the schools and when the students go through Common Core-based performance tasks."

Professional development is most effective when tailored to the unique needs of each district and school, but will likely focus on helping teachers to:

- Move away from a heavy reliance on printed materials by adapting curriculum and lesson plans to incorporate more technology and digital content, and to meet the academic rigor requirements of the CCSS
- Learn how to use the new devices and applications themselves, and how they can help students use the technology tools and digital content effectively
- Analyze results from the formative assessments in order to adjust classroom instruction immediately and respond more effectively to the learning needs of individual students

All of this needed professional development comes at a time when district training budgets are already tight. However, if funds can be dedicated, the investment can deliver a significant return by empowering teachers and instructional specialists to create online learning communities and wikis for sharing content resources within a school, grade level or curriculum area. Other cost-effective ways to deliver professional development include collaborative workshops that involve teachers from multiple schools, and volunteer peer mentors among teachers within a school or subject.

Comprehensive professional development, beyond just addressing teacher needs, can be considered as well. District curriculum and instructional specialists also need professional development support, notes McKernan. "Everyone on the district's instructional support staff now needs to be up to speed on technology and digital content as well as strategies for using them together effectively," she says. "This is a different role from the past, when instructional staff could focus just on the content and curriculum design."

## Conclusion

The curricula, technology and teacher development resources implemented today will help K-12 districts prepare for the current CCSS requirements and for future evolution of standards-based teaching. More importantly to the fundamental vision of the Common Core State Standards, the new technologies and new ways of teaching will help improve student learning and achievement every day.

## District Snapshots: CCSS Implementation

Three districts demonstrate their device preparations for alignment with the Common Core standards.

### Albuquerque Public Schools



90,000 students



Urban district



Desktop and laptop computers, tablets

### Central Unified School District



15,000 students



Urban/rural district



Tablets for all students in school year 2014-15

### Los Banos Unified School District



9,800 students



Small town/rural district



Tablets for teachers and students in selected classrooms

## Endnotes

1. CDE interview with Rose-Ann McKernan, May 29, 2013
2. CDE interview with Dr. Laurel Ashlock, June 3, 2013
3. CDE interview with Dr. Steve Tietjen, June 5, 2013



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