

Issue Brief

Effectively Navigating the Tablet Revolution

Choosing and managing mobile devices to deliver new teaching and learning opportunities in K-12

Perhaps the most frequently spoken words in any classroom have been, “Okay class, open your books to page ...” Today, that phrase is changing to “Okay class, click the link for ...” as digital content accessed on a mobile device increasingly supplements, or even replaces, printed textbooks.

K-12 districts are choosing to deploy mobile devices, especially tablets, to increase student engagement, improve learning opportunities both in the classroom and via remote access, and prepare today’s students for a digitally connected global economy.

This move to mobility presents implementation and support challenges for technology and curriculum administrators. Districts are solving these challenges by looking at the key issues of device and content choice, teacher training, infrastructure readiness and policies.

Choosing the Right Devices to Meet Learning Needs

For most schools and districts, there’s no question that mobile devices will have a growing role in classroom teaching and learning. Instead, the questions they are now asking include: Which types of mobile devices should we standardize on? A single device such as a tablet? Or, should we allow teachers to choose from multiple devices? And do we want to allow students to use their own smartphones, tablets and computers under a “bring your own device” (BYOD) program?

In a 2013 survey conducted by the Center for Digital Education (CDE), K-12 educators reported, in a 2:1 ratio, that their districts provided devices to students and staff compared to districts that rely on a BYOD policy. An additional 22 percent of respondents said their districts support both school-owned devices and BYOD.¹

The same survey also found that tablets are becoming the device of choice, with 66 percent of respondents saying tablets are currently used in their districts. Theresa Jay, director of technology at Thayer Academy in Massachusetts, explains one reason why: “If students can use their own devices, then the teaching has to be at the lowest common denominator of what students bring to class. This becomes even more problematic when you consider that some apps don’t have the same interface or capabilities on different devices.”²

However, for some districts a BYOD program will be a necessity because funds simply won’t be available to buy a tablet for every student. In this case, specify which capabilities must be supported on a personal device, says Karen Diggs, director of technology for Northwest Hendricks School in Indiana. “With a BYOD program, we can apply the cost savings to buying school-owned devices for students who need them, but also have more money for digital textbooks, learning apps and infrastructure maintenance.”³

Choosing the Right Digital Content


What really drives a district’s choice of learning devices? According to 42 percent of respondents in the 2013 CDE survey, it’s the availability of educational applications and content. As knowledge and communications continue to evolve from print to digital, the depth and breadth of digital learning resources will grow.


Today, a wealth of educational apps, eTextbooks and other learning content are designed to take particular advantage of tablet features for display, communication, sharing and interactivity. Platforms for managing content and student access to eTextbooks, online learning objects and digital content subscription services are available from educational publishers and through sites such as iTunes and Kno.com. Wikis and online communities are open to teachers nationwide or within a state or district to share ideas and resources for digital learning.




Teens and Mobile Devices

Teens are clearly comfortable with using mobile devices for Internet access. According to the Pew Research Center:⁴

 **23%** of teens have a tablet, a level comparable to the general adult population.

 **33%** of all teens have smartphones.

 **74%** of teens access the Internet on mobile devices occasionally, and 25% are “cell-mostly” Internet users.

Delivering Teacher Training and Support

Many teachers already own and use tablets outside of the classroom. However, some teachers are reluctant to work with a new and unfamiliar device that they might perceive as being more of a distraction than a learning tool. "We need to give teachers a way to comfortably move away from the printed textbook," says Peggy Villars Abadie, executive director for IT in the Orleans Parish School Board in Louisiana. "If teachers start by letting students use mobile devices in small group activities, they will gain confidence for using devices and digital content in other instructional activities."⁵

No matter their level of experience with tablets and digital content, teachers will need focused training and support resources in order to use tablets effectively for instruction. This training can cover topics such as:

- Understanding how to operate the tablet and help students use them appropriately
- Adapting lesson plans and classroom activities to take advantage of tablet capabilities
- Focusing student attention and reducing distractions when tablets are in use

"Teachers will see that with digital content and mobile devices their class planning will be simpler," says Jay. "They'll be able to create a better flow of classroom activities because they won't have to structure learning around an assigned schedule for computer time."

Building the Foundation

A digital learning program needs an adequate foundation of technology infrastructure, processes and policies that support more mobile devices and Internet access.

The infrastructure assessment should cover the adequacy of a school's network design, Internet access bandwidth, filtering of content and websites, and data security. In a 2012 CDE survey, 43 percent of districts said infrastructure and connectivity issues are a top challenge for access to digital content.⁶ However, districts also indicated that wireless and broadband initiatives are priorities for implementation.

Other necessary infrastructure elements include content and application servers, content management platforms, and cloud-based services for learning tools and Internet access. For these systems and services, it's important to evaluate not only their individual capabilities but also their interoperability — with each other and with the mobile devices that will be used by students and teachers.

Define device usage policies that balance the need for open content access to expand student learning opportunities with necessary protections for privacy, restricted content and device security. Finally, and no less importantly, evaluate systems for managing and securing all school-owned mobile devices.

Making Sure Your District Is Ready

There is no question that mobile devices and digital content in the classroom will continue to increase. By looking at the factors described here, K-12 districts can make sure their curriculum choices, faculty training and IT infrastructure are ready to excel at creating new learning opportunities for students.

Endnotes

1. CDE survey conducted April 2013
2. All quotes from Theresa Jay from CDE interview conducted on March 20, 2013.
3. All quotes from Karen Diggs from CDE interview conducted on March 19, 2013.
4. Teens and Technology 2013, Pew Internet:
<http://pewinternet.org/Press-Releases/2013/Teens-and-Technology-2013.aspx>
5. All quotes from Peggy Villars Abadie from CDE interview conducted on March 26, 2013.
6. CDE Digital Content and Curriculum Study, December 2012



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The 4 Critical Steps for Choosing a Digital Content Platform

1. **Choose digital content** (before choosing the platform) based on your learning objectives and instruction plans.
2. **Identify needed integrations** with other systems and your IT and network plans.
3. **Select which devices** will be supported for student and teacher access.
4. **Evaluate digital content** platforms to find one that best accommodates the requirements identified in steps 1-3.