

## Issue Brief

# Improving Mobility in K-12 Education

Outfitting tablets with keyboard peripherals for a better learning experience

## Tablet Time in the Classroom

By now, it's no secret that mobile devices are proliferating rapidly throughout the K-12 educational landscape — and that tablets are seen by many as the ideal mobile device for student learning in this environment. According to a recent 2013 Center for Digital Education (CDE) survey of K-12 educators, 66 percent of respondents said tablets are currently used in their districts.<sup>1</sup> As a recent CDE issue brief put it, "tablets are becoming the device of choice" as education transforms into a digital, mobile environment.<sup>2</sup>

Why are tablets gaining such a strong foothold in the educational space? The short answer is that tablets, which combine portability, affordability (compared to traditional laptop computers) and a multimedia-friendly design, possess the ideal characteristics that schools often look for when assessing digital learning options. The 2012 K-12 Horizon Report labeled tablets a "technology to watch" in the near-term, stating: "Because tablets are able to tap into all the advantages that mobile apps bring to smaller devices but in a larger format, schools are seeing them not just as affordable solutions for one-to-one learning, but also as feature-rich tools for all sorts of assignments as well, often replacing far more expensive and cumbersome devices and equipment."<sup>3</sup>

## Peripherals: Making a Good Thing Even Better

What truly sets tablets apart from devices like traditional desktops and laptops is their high portability factor. Thanks to the increasing ubiquity of WiFi, equipping students with tablets can enable anytime, anywhere mobile learning. Likewise, outfitting teachers and staff with tablets allows for more versatile, efficient teaching and administrative work.

Tablets do have some limitations — for example, typing reports and other long-form written content can be difficult while using a tablet's built-in touchscreen functionality. However, with the right affordable tools, these apparent downsides can be easily nullified. To compensate for a tablet's shortcomings — and turn it into a device every bit as powerful and usable as a laptop in the process — users can outfit it with certain types of peripheral hardware, such as keyboards.

## Value Added

By using a peripheral keyboard with tablets, students, teachers and staff alike will realize significant advantages.

### Students:

With their large, touch-based screens and lightweight portability, tablets are ideal for viewing and interacting with multimedia content.



**For schools and districts wanting to get the most out of tablets,** the addition of peripheral keyboards can make a big difference. They give tablets as much typing functionality as traditional desktops while preserving the mobility factor, and can significantly enhance the learning experience.

Students with tablets can engage in cutting-edge classroom learning that incorporates videos, photos, interactive tutorials and other progressive learning content. For example, students at Autrey Mill Middle School in suburban Atlanta use tablets to practice Spanish in an interactive environment.<sup>4</sup> They can also take quizzes and exams on the tablet instead of using pen and paper, allowing for much faster (if not instant) grading and feedback.

However, when it comes time to do something more "traditional," like write a history paper or a mathematical proof, using a tablet by itself can be slow and cumbersome — touchscreens are not ideal for generating written content.

With a peripheral keyboard, this shortcoming is negated — students can type up papers, as well as complete day-to-day written assignments, just as easily as on a desktop computer. (The students at Autrey Mill Middle School, for example, could write entire essays in Spanish as well as complete stand-alone grammar exercises.) And the tablet retains all of its original mobile functionality when disconnected from the peripheral keyboard, whether the keyboard is cordless or corded. According to the Pew Research

Center, 81 percent of Generation Y prefers to connect wirelessly; with this in mind, the ability to preserve mobility with a peripheral keyboard is critical.<sup>5</sup>

### Teachers and Staff:

School-owned tablets with peripheral keyboards can make work much easier for teachers and staff. When report card evaluations, assignment feedback, lesson plans and examination questions must be written, having a peripheral keyboard enables teachers to complete the task on their tablet. This, in turn, enables them to complete the task anywhere, whenever it's most convenient.

For their part, school staff can use tablets with peripheral keyboards as their primary workplace device instead of an expensive desktop or laptop. When a job function, like a meeting, requires staff to venture across campus (or off campus entirely), they can take the tablet (and the keyboard) with them, preserving the device's mobile functionality.

## What to Look For

When exploring options in the peripheral keyboard space, schools and districts should make sure to keep the following features in mind.

**Size.** Look for a peripheral keyboard equal in size to a "standard" keyboard found with a desktop or laptop. Standard-sized peripheral keyboards make typing on a tablet a more familiar experience for users. Students, teachers and staff will all find the transition from "traditional" computers to tablets easier to manage. *Key Audience: Teachers, administrators and students.*

**Battery life.** As a mobile device itself, eventually your peripheral keyboard will have to be recharged. However, some can last as long as three months on a single charge, and some can recharge while connected to a tablet. This increases battery life and lowers the risk of running out of charge while completing an important task. In an educational setting, where all work is important — whether it's a research paper, student evaluation or lesson plan — users shouldn't have to worry about the battery dying every couple hours. *Key Audience: Teachers and students.*

**Protection.** Some keyboards attach to the tablet in "folio" form, giving the tablet an added layer of protection from the elements — or, more likely, clumsy student fingers. Many of these are equipped with durable shells to shield both the tablet and the

keyboard itself in the event of a drop. Additionally, when students and staff are mostly typing on a peripheral keyboard, it protects the actual tablet screen. It is much cheaper to replace worn out keyboards rather than replacing the tablet itself. *Key Audience: Students, teachers and administrators.*

**Deployment.** Look for a peripheral keyboard that is "plug and play," requiring no installation of software or downloading of apps onto the tablet in order to function properly. This saves schools and districts both money (on software) and time (on installations, updates and maintenance). It also makes it easy for students to share devices in the event of a shortage. *Key Audience: IT staff and administrators.*

**Wireless capabilities.** Cordless and corded peripheral keyboards each have advantages and disadvantages; contrary to what some may assume, cordless is not always better. In a classroom setting, having up to 30 (or more) wireless keyboard signals crossing paths may lead to lag times, as well as mixed-up connections — a student's typing may inadvertently show up on a neighbor's device, for example. In the classroom context, therefore, peripheral keyboards that connect to tablets via traditional power cords may be preferable, depending on other circumstances at play. Of course, cordless devices are generally easier to transport. Schools and districts must decide what characteristics are most important for their unique situations. *Key Audience: Teachers and administrators.*

## Merging Mobility with Functionality

Tablets are an ideal fit for schools and districts looking to embrace technology-based learning and move to a mobile learning environment. The move toward tablets is eased by the fact that the primary users (the students) have grown up in a digital age. Many (23 percent) already own tablets at home, and nearly three-quarters (74 percent) already are familiar with accessing the Internet on mobile devices.<sup>6</sup>

For students of the Millennial generation and beyond, using tablets in the classroom is not just possible — it is natural, and even expected. For schools and districts wanting to get the most out of tablets, peripheral keyboards offer several advantages for students, teachers and staff. By giving tablets as much typing functionality as traditional desktops while preserving the mobility factor, peripheral keyboards can significantly enhance the learning experience.

## Endnotes

1. "Effectively Navigating the Tablet Revolution," CDE issue brief, 2013, [www.centerdigitaled.com/paper/Preparing-for-mobility-initiatives-in-K-12-educational-institutions.html](http://www.centerdigitaled.com/paper/Preparing-for-mobility-initiatives-in-K-12-educational-institutions.html)
2. Ibid.
3. NMC Horizon Report: 2012 K-12 Education, [www.nmc.org/pdf/2012-horizon-report-K12.pdf](http://www.nmc.org/pdf/2012-horizon-report-K12.pdf)
4. Cassidy, Christina, "Digital Education — Schools, firms starting to integrate tablet technology into classrooms," *Marietta Daily Journal*, May 2013, <http://mdjonline.com/>
5. "Simplifying Bring Your Own Device (BYOD) in Education," CDE Issue brief, 2013, <http://forms.erepublic.com/cvg-paper-step1-default?r=cvg-paper-step2-default&contentID=200283541>
6. Ibid.



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