Yea, there's an app for that, but…
~John Ross

It seems like many of the groups I've been working with recently—from schools on up to states—are going gaga over touch-screen mobile devices (especially the iPad and sometimes the lesser known Android Honeycomb and Dell Streak, among others). I have to admit they look pretty sexy, from a technology standpoint, but the fervor with which some educators are throwing limited technology budgets at them has me a little concerned.

I recently completed a review of literature for a state department of education that was investigating the possibility of an iPad pilot. I found out some interesting things about the app market that I thought worth sharing.

And the winner is…
Foreign language, actually. In a review of apps available in the education section of the iTunes Store in 2009, Carly Shuler from the Joan Ganz Cooney Center at Sesame Workshop found that the most popular content areas for apps were foreign language and literacy. That piqued my interest. A total of 92% of the apps available at that time targeted either adults (57%) or toddlers/preschoolers (35%)—very little for elementary, middle, and high school students. I did a quick review of the education section of the iTunes store a couple of weeks ago, and it looks like the foreign language apps are probably geared towards the adult (and older student) side and the literacy apps for the toddler/preschoolers. Makes sense to me.

Another nice finding was that most of the apps for children are very inexpensive. Most are only 99 cents and none were more than $2.99 (from Shuler's 2009 report). Some of the apps for adults could be quite pricey—with one for $149.99(!)—but even with that outlier the average price was around $5.

The Sesame Workshop folks commissioned outside research on two apps, *Super Why* and *Martha Speaks: Dog Party* (see the Executive Summary at http://pbskids.org/read/research/mobile.html), that showed significant gains in learning for young children between the ages of 3 to 7. Both of these apps targeted literacy, not foreign language, and were based on popular children's television shows on PBS. The researchers also found that most of the children had little problem operating the devices, and those that did required very little guidance to overcome them. The kids were persistent, too, and kept working with the device to overcome problems on their own. I was encouraged, however, to find at least one experimental study that focused on these new learning resources, as experimental research is quite difficult to find when it comes to educational technology in schools.

And the catch?
While the future of these lightweight, portable devices seems promising, there are also a few issues anyone considering implementing them should be concerned about. My belief is that these will be less of an issue over time, but there are some things to think about.

One of the most-talked about issues is that the iPad does not currently support Flash, which is software that's used to show much of the animated or video-based content on the web. There's a lot of it out there, and if your textbook series or other curriculum contains online multimedia elements in Flash, it may be a deal-breaker – for now. This is currently a marketing point for other makers of touchscreen devices. None of us know where this will end up, whether next generation iPads will support Flash or if some third-party workarounds will evolve, but just be sure to test your favorite content on any device to determine whether or not it works for you.

Perhaps the most important issue is that anyone can create and post an app. Honest, there's a group called *Moms with Apps* (http://momswithapps.com/) that consists of moms and dads who have created apps, whether they're educators, instructional designers, or even software developers. Sound familiar? If you were teaching in the 1980s, you might remember the early software available for the then-new personal computers that were coming into our classrooms. Most of it could be summed up in one word: *horrible.* Primarily drill-and-practice programs that focused on low-level recall with rudimentary branching, limited learner control, and a bevy of multiple-choice questions, the early software had little to do with learning theory and sacrificed learning for novelty.

And how do you find the good apps? There's no universally accepted standard or quality metric for apps, and the app stores will list their top sellers, but you don't have any information as to how good they are. A few school districts and individuals are now posting a list of apps they use and some reviews, but little of the information relates to how effective the apps are and the reviews can be hard to search. My favorite review site for apps—so far—is Common Sense Media, that uses developmentally appropriate criteria at each age to review apps and other media, like television shows, books, and movies. You can check out their reviews and filter them by some helpful criteria at their review site (http://www.commonsensemedia.org/reviews?media_type=30061).

Do Your Homework

If you're interested in incorporating apps into your language teaching, just be sure to do your homework, just as you would with any curricular resource. It's easy to find what's selling well through the iTunes Store or Android Market, but even just a simple search for "foreign language" can be frustrating as it brings up many erroneous matches. The app descriptions are also often short and—again—most are focused on features rather than how well it supports learning.

Researchers for the Sesame Workshop also found, at least with young children, that student usage either stopped or changed relatively quickly, even after a week. The problem was that most apps have a limited amount of content, and once the students master the content, the apps can be of little interest, so they start "gaming" the app and trying to earn high scores or try other strategies that don't necessarily match learning. From this lesson, it's important that you find apps that have a good deal of content or that release updates to the content over time.

On the plus side, as mentioned earlier, the low cost of many of these apps means that you may be willing to download one or two and try them out. If you do, let us know how it worked! I'd be glad to hear how you are using these new devices and software, your successes, and the challenges. Until the market matures and we have a better way of finding the best apps, we're going to have to depend upon each other to share what we've learned.

For more information:

Chiong, C. & Shuler, C. (2010). *Learning: Is there an App for that? Investigations of Young Children's Usage and Learning with Mobile Devices and Apps.* New York: The Joan Ganz Cooney Center at Sesame Workshop. Available from http://www.joanganzcooneycenter.org/Features-82.html

Rockman et al., (2010). *PBS Kids iPod app study: Executive Summary.* Available from http://pbskids.org/read/research/mobile.html

Shuler, C. (2009). Pockets of Potential: Using Mobile Technologies to Promote Children's Learning, New York: The Joan Ganz Cooney Center at Sesame Workshop. Availabe from http://www.joanganzcooneycenter.org/Cooney-Center-Blog-69.html