An App for That... and That...and That

Educators name 10 of the most valuable mobile software downloads for teaching and learning. By Susan McLeester

The mobile technology market is blooming with powerful applications that have the ability to transform education with the ease of a download to any number of handheld devices. To learn what apps educators are finding most valuable to teaching and learning, we asked presenters from this month's Florida Education Technology Conference (FETC) to share some of their favorites. As you'll see, their choices range from teacher productivity and organizational tools to resources for at-risk students and personalized math education. All of the products are certain to give a meaningful boost to your teaching efforts as well as to your students' educational experiences.

Arithmaroo 1 (arithmaroo.com) Counting is easier for elementary-age kids when they can actually see number patterns and relationships. In Arithmaroo 1, from Isanology, each screen displays numbers in three different ways—as an arrangement of objects, as a numeral, and on a grid. The child is asked to choose the number from the grid that matches the others.

Arithmaroo has elements in common with traditional classroom manipulatives that help students visualize and interact with numbers, but is enhanced with a variety of multimedia features—such as colorful dots and hands on cave walls—flute tunes, and encouraging verbal feedback, as well as the self-pacing that allows kids to measure their progress. Four levels of difficulty, age-appropriate navigation, and alignment to math standards are additional benefits. (iPhone, iPod Touch; $1.99 download)

Bento (filemaker.com/products/bento/iphone.html) Multitasking educators can stay organized, update documents, and keep all their key data in a single location with FileMaker's Bento. Users can carry and edit their Bento database from their mobile device, which easily syncs back to their Mac desktop, to update changes from anywhere they happen to be. Managing and tracking projects, contacts, meetings, lists, and more is made easy through 25 built-in templates.

For administrators on the go, such as Kathy Schrock, technology director for the Nauset County Public Schools in Cape Cod, MA, the app is a lifesaver for keeping information on hand to have at a moment's notice. "I use it for easy access to passwords, software license keys, and other tech-related information I need as I travel throughout the school district," Schrock says. (iPhone, iPad, iPod Touch; $4.99 download)

Dropbox (dropbox.com) Offering free, secure file storage and sharing, along with automatic syncing across multiple computers from any location, Dropbox is another time- and energy-saving educator tool. "Having files available on any computer or my phone, not having to keep track of flash drives, and being able to share documents quickly really do affect teaching and learning," says Cathie Loensing, technology integration specialist for Columbia Public Schools (MO).

Dropbox offers a selection of teacher-friendly controls, such as the ability to set bandwidth limits, eliminate users from individual computers, and create shareable photo galleries. Unlike most other mobile app offerings, Dropbox is available for a broad range of devices. (iPhone, iPad, iPod Touch, Android, BlackBerry, Linux; free download)

Flip It! (ryancode.com/flipit) This doodling animation tool created by engineer Ryan Carlson brings drawings to life through a flip-book effect. Named by iTunes "the most popular animation app in the App Store," Flip It! reaches students through visual reinforcement of concepts. Activities such as animating a book character, illustrating plant growth over time, or designing a machine and putting it into motion engage and challenge students' abilities in numerous subject areas.
Kathy Hobbs, technology specialist at Southside Elementary School in Jacksonville, FL, says she uses Flip It “to illustrate ideas and supplement my introductions to animation activities.” The product includes a student interface, seven drawing tools, a full color palette, and the tools to create a one-page drawing or a 1,000-page animation. (iPhone, iPod Touch, iPad: $1.99 download, try Flip It Lite for free)

Motion Math (motionmathgames.com) Motion Math was named runner-up in both the “Most Innovative Product/Service” and “Most Likely to Succeed in the Education Market” categories in conjunction with the Software & Information Industry Association’s 2010 Innovation Incubator awards program.

The software turns a handheld device into what Motion Math’s developers call a “virtual manipulative,” providing students with a physical, game-based interaction with math to help them crack the mystifying world of fractions. Players try to shoot a bouncing ball containing a fraction onto the right spot on a number line. The activity emphasizes recognition of fractions in their various representations, such as percents, decimals, pie charts, and numerator over denominator. Visuals, sound effects, and escalating levels of difficulty keep learners motivated and practicing. (iPhone, iPad, iPod Touch: $0.99 download)

Poll Everywhere (poileverywhere.com) The developers of this app make a plea to users to “stop paying for expensive technicians, passing out clickers...and lugging around bags full of keypads.”

Poll Everywhere takes a new approach to classroom response systems by harnessing existing web and mobile phone technology and relying on text messaging rather than proprietary hardware and clickers for responses. Functions of the service include the ability for students to respond with typed-in text rather than just multiple-choice answers, and for teachers to gather data from students at home or in other locations off campus. For schools that incorporate social networking tools, Poll Everywhere also offers poll integration with Twitter. (Cell phone, BlackBerry, iPhone, free for K-12 classes of 32 or less)

Proloquo2Go (proloquo2go.com) AssistiveWare’s Proloquo2Go turns a mobile device into a “communication board” that offers students with speech troubles a means of voicing their needs. The main menu uses symbols and words to identify functions that let users build basic messages, such as “Hi” and “Bye,” “I want,” and “I need.” Messages can be spoken with a text-to-voice application or sent out via the message window. Included are high-resolution symbols, more than 7,000 vocabulary items, and automatic conjugations.

Luis Perez, who works with preservice teachers in the special education program at the University of South Florida, says he uses the software on an iPad to prepare teachers to support special education for autistic students, “because it can replace other communication devices that cost several thousand dollars more.” (iPhone, iPad, iPod Touch: $189.99)

Receptive Identification (kindergarten.com) From Kindergarten.com, this app offers more support to autistic children by helping them learn vocabulary, understand basic instructions, and practice positive listening behaviors. Consultant and author Susan Brooks Young, who works with special education preschoolers, says Receptive Identification is popular for its ease of use in teaching students new words.

“They’ve grown three pictures to look at and asked to touch the picture that is named,” she explains. “They’re given a reward if correct and told the name of the picture that was touched if incorrect.”

Game activities may include instructions to “touch the gummy worm” or “find the hot-air balloon.” Eighty-five colorful images and audio are included with each game. (iPhone, iPod Touch, iPad: $0.99 per game)

Video Physics (vernier.com/software/video/physics.html) Vernier has created an app that allows users to tap into the power of the company’s Logger Pro desktop data-collection software for in-the-field studies. Students or teachers can videotape objects in motion, mark their positions frame by frame, and set up a scale using known distance. The software then graphs trajectory, position, and velocity, and students can e-mail the video and data back to Logger Pro for further analysis—right from their mobile device.

Users can also share graphs and videos on Facebook or save them in their personal digital libraries, and educators don’t need to worry about downloading video or having students bring cameras to school. (iPhone, iPod Touch, iPad: $1.99 download)

Wolfram Alpha (products.wolframalpha.com/iphone) This answer engine, billed by its developers as a “palm-sized supercomputer,” lets users type in queries to learn basic information, such as a state’s average rainfall, or more complex content, such as the molecular structure of compounds that make up hydrogen. Responses are given in both text and relevant visual forms, such as charts and graphs. Currently, the product contains more than 10 trillion pieces of data, and 50,000-plus algorithms and models.

Dave Khatib, principal of St. Thomas Aquinas Middle School in Red Deer, Alberta, Canada, uses Wolfram Alpha as a tool to broaden learning. “If students are struggling with understanding a concept, such as ‘democracy,’ they can type in the word and be presented with an answer in multidisciplinary form,” Khatib says. “They’ll see a definition, word origin, synonyms, and narrower terms of its use that help deepen their understanding.” (iPad, iPod, iPod Touch: $1.99 download)

Susan McAlester is a freelance writer based in Berkeley, CA.