Introduction

As mobile devices become increasingly prevalent in our society, they are slowly but surely making inroads in our schools. While some schools continue to ban cell phones in the classroom, others are embracing them – as well as a myriad other mobile devices. This guide provides up-to-date statistics on the use of mobile devices in education, and the numbers may surprise you. For example, about 70% of K-12 schools currently implement mobile devices.¹

To help educators overcome some of the hurdles they face with mobile devices, this guide also provides a Quick Reference to the most popular types of mobile devices, and their individual pros and cons. You’ll also learn about the science behind how technology adds to deeper learning, get ideas on how to use these devices for collaboration and assessment in the classroom, and find a list of popular applications and review sites.

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The Challenges of Mobile Devices in the Classroom

Tablets and other mobile devices have been in schools for only about the past three years, so there are no truly well-established instructional practices for them. Most teachers are aware that the mobile movement is underway in K-12 education, but they are uncertain how to incorporate the devices in their classrooms.

Academics and researchers have begun to provide frameworks for thinking about how to use mobile devices for teaching and learning. For example, Dr. Ruben Puentedura has developed the SAMR framework as a guide to using technology devices in the classroom. SAMR is an acronym for four types of classroom applications: Substitution, Augmentation, Modification, and Redefinition.

### Definition and Example

<table>
<thead>
<tr>
<th>Type</th>
<th>Definition</th>
<th>Example</th>
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<tbody>
<tr>
<td><strong>Substitution</strong></td>
<td>Substitution is the first step in redefining your classroom. During this phase, classroom technology acts as a direct tool substitute, but there is no functional change to the lesson.</td>
<td>A teacher directs students to use Google Earth to locate a place, instead of using an atlas.</td>
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<tr>
<td><strong>Augmentation</strong></td>
<td>Augmentation is the second step in digitally enhancing your classroom. In this phase, classroom technology acts as a direct tool substitute, and there is some functional improvement to the lesson.</td>
<td>The teacher instructs students to use Google Earth to measure the distance between two places on a map, instead of using calipers or simply estimating using the scale.</td>
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<tr>
<td><strong>Modification</strong></td>
<td>The modification step begins to transform your lesson. Modification occurs when classroom technology allows for significant redesign of the project or task in the lesson.</td>
<td>The class would be instructed to use Google Earth layers to research locations on a map.</td>
</tr>
<tr>
<td><strong>Redefinition</strong></td>
<td>During the redefinition phase, the ultimate goal of classroom technology allows for the creation of new tasks and projects that were previously inconceivable within a traditional lesson.</td>
<td>A teacher has students use Google Earth to create narrative guided tours of a location, which they can share online with other students.</td>
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Redefinition is the area that provides the most excitement for both teachers and students. The technology isn’t just letting teachers teach the same way with a different tool; it’s actually bringing learning to a new level. For example, with the MimioMobile™ app installed on any combination of mobile devices, up to 50 student devices can work simultaneously on a MimioStudio™ activity, with everyone’s work displayed at the front of the classroom — encouraging collaboration. The app also lets students use their mobile devices for assessment via numeric, short-answer, and short-essay questions.

In the section of this guide titled “Redefining the Classroom: Exciting Ways to Use Mobile Devices,” you’ll find some helpful ideas on how to incorporate mobile devices into your curriculum.

While the learning possibilities are exciting, the mobile-device arena can be confusing. There is a plethora of devices now, and the technology is constantly changing. Determining how to make these devices available in the K-12 market further complicates matters for educators.

There are new devices, updated devices, devices for just K-12, and BYOD (bring your own device) challenges. Educators require at least a general understanding of these possibilities before they can make the best, most informed decisions. The Quick Reference in this guide outlines the key types of mobile devices that are currently prevalent in the K-12 market, and lists their pros and cons.

There are other technology challenges faced by today’s schools:

- **Security Issues** — the ability to control the privacy of student data when it is being managed via a Cloud-based service.
- **Bandwidth Issues** — the ability to provide the amount of bandwidth necessary to allow all devices in a classroom or school to work simultaneously and seamlessly.
- **Setup and Management Issues** — the ability to handle the initial setup of devices and their apps in the classroom, as well as their ongoing management. As Technology/Curriculum Specialist Kathy Korty notes, “During the 2012-2013 school year, we lost 300 out of 1000 devices to breakage.”

These challenges may seem daunting, but new technology, learning systems, and applications are coming out constantly to make this transition go smoothly for schools, teachers, and students. For help going mobile, see the list of apps and review websites at the end of this guide.

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"To understand their world, we must be willing to immerse ourselves in that world. We must embrace the new digital reality. If we can’t relate, if we don’t get it, we won’t be able to make schools relevant to the current and future needs of the digital generation."

Ian Jukes
Founder & Executive Director
of the InfoSavvy Group
Education Is Going Mobile

Classrooms Go Mobile
Most students say they have access to Wi-Fi at home, though at school the percentage is much lower.⁴

96% Wi-Fi Access at Home

68% Wi-Fi Access at School

Teachers Go Mobile
Teachers have access to tech more than ever! 88% smartphones 85% laptops 63% tablets.⁶

Students Go Mobile
Teachers have access to tech more than ever! 88% smartphones 85% laptops 63% tablets.⁶

Use laptops or other mobile devices every day at school.⁸

8 in 10 students

Middle schoolers are using mobile devices to:⁹
- 78% Check Grades
- 69% Take Notes
- 56% Access Textbooks
- 63% Write Papers

Parents Go Mobile
35 million parents plan to buy or have already bought a mobile or tablet device to support their child’s learning at school.¹⁰

Texting for Teachers!
Texting is a growing avenue for educator communication:
- 62% with colleagues
- 28% with parents
- 7% with students.⁷

Mobile Benefits
Students on mobile devices spend 40 minutes longer studying than students without mobile devices.¹¹

Of the devices available to them, elementary and middle school students most enjoy working on a tablet. High school students prefer their laptops, notebooks, or Chromebooks.¹³

I ❤

How Are We Going Mobile?
There are now more mobile devices in the world than people — some 7.22 billion devices!¹⁴

Our time online is spread over 4 devices. Average minutes spent on each:¹⁵

- 74% Reinforces and expands content
- 74% Motivates students to learn
- 73% Students respond to the variety of learning methods
- 69% Able to do more with technology than without
- 65% Can demonstrate in ways they can’t without technology

Apple or Android?
Percent of operating systems on mobile devices in the U.S.:¹⁶

- 53.2% Android
- 41.4% Apple

Learn more about all of our Mimio products at mimio.com or 877.MY.MIMIO.
Mobile Device Quick Reference

This Quick Reference provides a snapshot of the different device types currently on the market, and offers some insight into the pros and cons of using these devices in the classroom.

When thinking about which device is right for your school or classroom, keep in mind how you will use the device the most. Do you need more touch-based features for a younger student group? Do you need to have the use of a keyboard? Is screen size a factor? No one device is the answer for every school. The key is to consider what will best help your teachers teach and your students learn.

The Tablet

What It Is: Tablets are highly portable computing devices, with a larger screen than e-readers and smartphones. They are capable of doing any task that an e-reader or smartphone can do, but do not have the processing power of a laptop.

Pros: Tablets are small and light and can fit easily into a student’s backpack. The screen size makes it easy to view class materials, take notes, and create content. By using your finger or a stylus, you can directly touch the screen, providing a more tactile experience than a mouse can for drawing and illustrating.

Cons: Their functionality as a computing device is very limited. They are costly, and you must take special precautions in the care of the touchscreen display. While protective cases are available, they require a separate purchase.

The Smartphone

What It Is: Smartphones are mobile phones that can run educational applications, record audio and video, and send email and text messages. Also in this category are “non-phone” smart devices (such as the iPod touch), which have all of the functionality of a smartphone minus phone and mobile broadband (data) capabilities.

Pros: Most students already own smartphones, so they are perfect for BYOD (bring your own device) classrooms.

Cons: For consuming media and material, the screen size can be limiting, and it is difficult to view any detailed content.

The E-book Reader

What It Is: E-book readers are primarily used for reading books, newspapers, and magazines. Some (but not all) e-readers offer Internet connectivity and other high-end functionality.

Pros: They are lighter than most tablets and are very comfortable to read, especially for longer periods of time or in the sunlight.

Cons: The functionality of some e-readers is limited to displaying reading material.

The Chromebook (Thin Client Laptop)

What It Is: A Chromebook is an example of a “thin client laptop.” A Chromebook is a personal computer that runs Chrome OS as its operating system. Thin clients are designed to be used while connected to the Internet; they support applications that reside on the Web (such as Gmail, Google docs, etc.), rather than traditional applications that reside on the machine itself. All the data is stored in the “Cloud,” and accessed via an Internet connection.

Pros: They cost a fraction of the price of a laptop, and have a full-sized keyboard for taking notes in the classroom. They support many USB devices, such as cameras, mice, external keyboards, and flash drives.

Cons: They offer only a handful of applications that will work offline.
The Laptop

What It Is: Laptops are portable PCs. They are larger and heavier than all of their mobile counterparts, but also much more powerful: they can run a desktop operating system. Laptops have a built-in keyboard and mouse (or trackpad), and they work both online and offline.

Pros: Laptops can run all popular desktop applications, including Word, PowerPoint, and Excel, as well as mainstream games. Nothing is faster for creating content than a laptop used with a keyboard and mouse.

Cons: They are the largest and heaviest mobile devices, and they are costly.

As the number of mobile devices on the market grows, the devices are becoming more and more affordable for students and for your school. Using these devices in the classroom makes learning more engaging for students, and allows them to work today with the tools that will shape tomorrow. Add the MimioMobile app to the mix, and you can use those mobile devices for assessment and collaboration in the classroom – the app supports 97% of all Apple and Android devices currently on the market.*

* The MimioMobile app works with iPad 2, iPad 3, iPad 4, iPad mini devices, iPhones (4th generation and above), iPod touch (4th Generation and above), and Android tablets 3.0 (Honeycomb) or higher.
How to Achieve Deeper Learning—
Whether Your Tools Are Low or High Tech

Before we dive into the specific ways in which mobile devices can be used to enhance learning, let’s explore some of the research behind this pedagogy and some successful learning strategies. Successful learning isn’t a mystery; science has proven which strategies are most likely to help humans learn. Some of the best strategies for successful learning in the classroom are deep engagement, assessment for learning, and student collaboration. Although these strategies can be implemented in low-tech ways, they can be significantly enhanced by using some of today’s new educational technology tools.

Deep Engagement

Engagement is the fuel for deeper learning

The engagement strategy has seemingly been at the center of most instructional technology. It is the most important strategy, because it directly affects students’ motivation and ability to learn. It encompasses all of the academic mindsets that are required for students to succeed in learning. Deep engagement should go beyond surface-level engagement strategies; it should strive to ignite the passion in students not only to learn the basics of any given subject matter, but also to gain lifelong interests. Project-based learning, the Maker Movement, and the Genius Hour are some great initiatives that are gaining traction to help drive deeper learning.

How memory and comprehension impact engagement

In order to understand the importance of engagement, consider what forms memory and comprehension in students. The human brain consists of over 100 billion neurons, which pass signals to each other over more than 1,000 trillion synapses. These synapses enable you to store, retrieve, and relate various bits of information. When you learn something new, synapses are created, linking new information to the existing information in your brain. The research done in 2008 on “brain-based learning” shows that the strength of these synaptic networks, or neural nets, is strongly affected by various emotions, as well as sensory stimuli. And since the encoding and decoding of the information is an active process, the information is much less likely to be retained if you are not engaged or genuinely interested in the material.

Assessment for Learning

Assessment is as much about learning as it is about gauging understanding

Understanding what your class understands and where an individual student needs help is essential when it comes to navigating through the school year. What is just as important, however, is using assessment as a learning instrument instead of an evaluation tool. As stated previously, memory and comprehension are accessed from your synaptic network through your working memory. In your working memory, you can think of a piece of information as logical chunks. When trying to learn the new material, you have roughly four working memory slots for each of these chunks. As you master concepts, multiple chunks can be grouped into one chunk, which takes up less space in your working memory.

Recalling information aids in learning

When trying to learn new material, the only way that this mastery of chunks happens is through recall. The fastest proven way to retain knowledge is to try to recall information from memory immediately after it has been learned. The best part about using assessment for learning is that getting the answer wrong adds more meaning to that bit of knowledge in the mind. The synapse that is created is even stronger after a wrong answer than it is after a correct answer. This learning strategy can be taken even further by summarizing the concepts (aloud or in writing) after the material is presented.

Student Collaboration

Learning together creates passion and new levels of understanding

At its core, collaboration provides students with one of the most powerful sources of engagement: interaction and learning with peers. By correctly grouping students with different levels of engagement, you can help engage disinterested students. This sense of belonging or community that a student experiences while collaborating is also one academic mindset that drives student motivation. Students need to feel that they belong, are supported, and have value. Without this mindset, students may disengage from learning altogether. Collaboration also gives students who are passionate about a subject a chance to infect other students with the same level of excitement.
The “teaching effect” of collaboration

Aristotle said it best: “Teaching is the highest form of understanding.” Anyone who has ever tried to teach someone else a topic knows that in order to do so, you first need a deep understanding of the material yourself. The simple act of teaching forces you to recall, reorganize, and clarify your thoughts, thereby creating clearer, stronger, and more well-defined synapses storing the information. Students who collaborate are effectively teaching one another. This works equally well in small-group and whole-class discussions, as long as each student is given a chance to speak up and contribute.

Teaching Now for Tomorrow

Can you collaborate and assess students without using mobile devices and the various apps that enable this type of interaction? Of course you can. You can engage students in all of these types of learning with nothing more then a pen and paper. But the depths to which you can expand these activities and the new ways you can approach them are extremely exciting with mobile devices. Think about working on and sharing a dynamic interactive activity with the whole classroom. Or assessing learning on the fly and receiving immediate feedback. All while using the tools and technology that will keep students engaged in the classroom today, and be key aspects of their lives in the future.
Redefining the Classroom: Exciting Ways to Use Mobile Devices

Today’s cross-curricular, collaborative approach to learning in grades K-12 places emphasis on assessing understanding and knowledge, rather than on testing the mastery of facts. Group learning and student-centric approaches are increasingly the norm, replacing textbooks, lectures, and note-taking. Mobile devices can make this transition nearly effortless for both teachers and students.

Collaboration

Establishing a collaborative learning environment in classrooms is an important method of empowering students to live and thrive in the real world. Discussion, cooperation, open-mindedness, a variety of viewpoints, higher-order thinking skills, different curricular areas, disagreement, and debate are all elements that help students learn how to collaborate with others and thus become better educated individuals. Mobile devices are a key tool in creating a collaborative classroom.

Your school may have a limited number of mobile devices available, but many of today’s students have their own smartphone. These devices can become learning tools within the classroom with a Bring Your Own Device (BYOD) program. For collaborative learning, it’s not necessary to have a device for every student. Simply break the class into groups and provide each group with a mobile device. Each group can then work collaboratively on a lesson or project sent to their device by the teacher. Their discussion will require them to agree or to compromise, and then come up with a joint solution that they can then present to the entire class. This allows the teacher to give each group a turn “teaching” – and the teacher can help guide and moderate the discussion and learning.

Mobile devices are allowing students to interact directly with the material being taught and work together in new and exciting ways. Teachers can help promote peer-to-peer learning, a key aspect of classroom collaboration, by paying careful attention to how they group students. For example, they might put students who have a good grasp of the lesson content with others who are struggling. Or they might group students who are adept with the specific mobile device(s) being used with others who are less familiar with the technology. Having a student teach and explain material to another student who hasn’t yet grasped a concept provides deeper learning for both. If students seem reluctant to collaborate in groups, the teacher could assign roles to one or more students in each group: one might be the “scribe,” who takes notes on the device, and another could be the “moderator,” who makes sure each student has a chance to speak.

Technology/Curriculum Specialist Kathy Korty finds that students love working with mobile devices. “Everyone agrees they are focused and engaged when they use the devices,” she says. “Our students and teachers are learning to implement more rigorous student activities and student projects. The use of mobile devices has been a real motivational tool for our teaching staff – they are so inspired by the capabilities.”

Mobile devices also give educators the flexibility to move throughout their classrooms – they’re no longer tied to the front of the room. They can move about to see how students are doing in their small group/collaborative work, using the device at the same time the students are doing their work.

Using mobile devices for collaboration increases engagement overall in the classroom and makes learning more effective. This is due at least in part to the fact that the learning is happening through a medium that students already know and understand. Today’s students are fluent “digital natives.” Rather than force old school habits on these technology gurus, we can reach them better by “speaking their language.” Nine in ten of today’s elementary, middle, and high school students believe that mobile devices will change the way students learn in the future (92%) and make learning more fun (90%). Mobile devices are changing how students learn, as well as helping them be better prepared for tomorrow’s workplace.

“ If we teach today as we taught yesterday, we rob our children of tomorrow.”
John Dewey
Educational Reformer
Assessment

Mobile devices allow for much more accessible, real-time formative assessment in classrooms. Teachers can immediately assess how well their students are learning, and then adjust their teaching based on this feedback. While mobile devices are ideal for quickly checking student levels of understanding, they also streamline the management of smaller group assignments and instructional needs. Students who are shy about speaking aloud in class can text the teacher, for example, with their questions.

Teachers can utilize different types of question options, which students can answer via their device. In addition to the usual multiple-choice and true/false questions, teachers can also ask students to submit short-answer and essay responses. This will help them develop skills for the Common Core Assessments, which will include these types of open-ended response questions.

Mobile devices are a great way to increase engagement in classrooms by incorporating fun, dynamic quizzes, polls, and contests, which help to encourage collaboration, debate, and discussion.

The ability to “flip” formative assessment is another great use of mobile devices. Teachers can flip the usual classroom model by conducting quizzes via mobile devices as part of homework, and then use these results to determine planning for the following day/week of instruction. This model allows teachers to see where there are instructional gaps before they prepare the lessons, thus making their instructional reach and efficiency even greater.

Assessment is more than just “testing” knowledge. Asking students to recall what they have learned provides a deeper understanding of the material. Even when they get the answer “wrong,” students are actually learning the information at a deeper level.

Instructional Technology Specialist Lindy George notes that “District devices... allow us to monitor student understanding of concepts to better inform instruction, and for formative assessment they have replaced the purchase of any type of ‘clicker’ system.”
More Than a Device

Mobile devices do more than allow students to use tools that they are familiar with; they also offer a deeper engagement with the material they are learning, as well as with the broader world. Students aren’t just learning about the oceans – they are watching video of aquatic life in their habitat, using applications that allow them to explore these creatures up close, remotely learning from scientists who are in the field studying these animals, and sharing what they are learning through group projects and interactive presentations.

Mobile devices can be used just like fancy pen and paper, but they reach their full potential when they are used in new and exciting ways to provide deeper learning and engagement.
Resources Section

In this section you’ll find some of the most popular educational apps on the market today. These apps perform a wide range of functions – from file storage to collaborating to providing image content for lessons. Apps for Android devices can be found at the Google Play store, which now has a special Education section. Apps for Apple devices can be downloaded from iTunes, and apps for Kindle devices can be downloaded from Amazon. All of these apps are designed to take your mobile devices to the next level.

Also listed in this section are a number of websites where you can find informative reviews of educational apps.

Popular Educational Apps

E-book Apps

- Kindle – The Kindle app is available for every major smartphone, tablet, and computer. With the free Kindle reading app, you can buy a Kindle book once and read it on any device that has the Kindle app installed.

- iBook – This free Apple e-book reader allows you to browse your library on a bookshelf, tap a book to open it, flip through pages with a swipe or a tap, and bookmark or add notes to your favorite passages.

- Marvin – This paid e-pub reader is highly customizable to a reader’s preferences. It offers some great extras – e.g., artificial intelligence, which reads your books and helps you discover things about their authors, characters, places, and events.

- Google Play Books – Google Play Books is a free cross-platform e-book app offered by Google. With over five million e-books, it’s the largest e-bookstore in the world. You can purchase and download e-books from Google Play and read them online or offline on your phone, tablet, or computer.

Collaboration Apps

- Pinterest – This content sharing service allows members to “pin” images, videos, and other objects to their pinboard. Also includes standard social networking features. For ideas on how to use this site and app for education, go to: pinterest.com/MBSDirect/reasons-to-use-pinterest-for-education/

- MimioMobile – Allows classrooms using MimioStudio™ software to get the most from mobile devices by using them for collaborative learning and ongoing formative assessment. Every student with a mobile device can interact with the lesson displayed on the interactive whiteboard.

- Skitch – This annotation app allows you to take a picture of something, mark it up with simple tools, and send it quickly and easily. Great tool for giving feedback and input visually.

- ClassDojo – ClassDojo offers an easy classroom management platform to help teachers encourage any behavior or skill in the classroom and keep parents in the loop through notes and images.

Capturing, Organizing, and Sharing Apps

- Evernote – A suite of software programs and services designed to let you archive and share your notes, files, and images with friends, colleagues, and classmates. Makes it easy to collaborate and work together on projects.

- Popplet – Lets you visualize ideas in a variety of ways. Useful as a collaborative brainstorming tool, as well as an effective presentation tool.

- Diigo – This social bookmarking website and app allows you to bookmark and tag Web pages. Users can also highlight any part of a Web page and attach sticky notes to specific highlights or to a whole page.

- Tumblr – This microblogging platform and social networking website allows users to post multimedia and other content to a short-form blog. Follow the blogs you are interested in and share the things you like with others.
Content Apps

- **Google Scholar / Scholar Droid** – Scholar Droid is a free app that lets you conveniently browse through search results returned by Google Scholar, a search engine that indexes the full text of scholarly literature across an array of publishing formats and disciplines.

- **Google Earth** – A virtual globe, map, and geographical information program.

- **Overcast** – An audio podcast player with features such as Smart Speed, Voice Boost, and Smarter Playlists to help you listen to more podcasts in more places.

- **Stitcher Radio** – Listen on demand to news, comedy, sports, and talk radio shows.

- **Anki** – A spaced repetition flash-card program that lets you create friendly, intelligent flash cards.

- **Leafsnap** – Allows you to identify any leaf simply by taking a picture of it. Leafsnap is the first in a series of electronic field guides that use visual recognition software.

- **BrainPOP** – Engage and teach students through animated movies, learning games, interactive quizzes, primary source activities, concept mapping, and more.

Content Creation Apps

- **Google Docs** – Allows users to create and edit documents online, while collaborating live with other users.

- **Animoto** – Turns photos into professional-quality videos, complete with music and text. Choose photos, video clips, music, and video style. Users can easily share their creations.

- **Green Screen by Do Ink** – Create green screen videos and images right on your mobile device. Classroom-tested, this app emphasizes ease-of-use and simplicity while still enabling you to get fantastic results.

Storage Apps

- **Google Drive** – Stores up to 15 GB of your data for free. Access your files from anywhere, and collaborate with others.

- **Dropbox** – Bring your photos, docs, and videos to Dropbox and share them easily.

- **Box** – Access and edit your files, share content, and stay connected with your students or colleagues from anywhere, on any device.

- **Onedrive** – Provides 7 GB of free Cloud storage for your files. Access them from a Web browser or a local device.

Alerts, Reminders, and Communication Apps

- **Remind101** – This free app gives teachers a safe way to send text messages to students and stay in touch with parents.

- **KikuText** – This app is a service that makes it easy for teachers to communicate with parents using text messaging.

- **Celly** – This app allows classmates and teachers to use social building blocks called “cells” for everyday collaboration, knowledge sharing, and group communication on any device.
**RESOURCES SECTION | A Helpful Guide to Mobile Devices in the Classroom**

**Learning Management System Apps**

- **Moodle** – Helps teachers create and deliver effective online learning environments. Browse the content of your courses, even when online. Note: Works only with Moodle-configured sites.
- **Canvas** – See grades, download class materials, and connect with classmates on the educational app.
- **Edmodo** – Provides a safe and easy way for teachers and students to engage and collaborate for free – anytime, anywhere.
- **Schoology** – This social network for K-12 schools and higher education institutions is focused on collaboration, allowing users to create, manage, and share academic content.

**Online Resources for App Reviews and Information**

- **Common Sense Media** – Lists age-appropriate apps that you and your kids will love.
  commonsensemedia.org/reviews?education_rating=learning_potential&media_type=30061
- **Education Insider Best STEM Apps** – Reviews STEM edtech apps (many of which are free) that will keep students ready to “rock the STEM.”
- **Balefire Labs** – Provides app reviews that are based on research and scientific criteria; apps are rated on effectiveness rather than opinion.
  balefirelabs.com
- **MindShift** – Explores the future of learning in all its dimensions, covering cultural and technology trends, innovations in education, groundbreaking research, educational policy, and more. The site has a section dedicated to app reviews.
  http://ww2.kqed.org/mindshift/
- **Langwitches Blog** – Classifies popular iPad apps in relation to Bloom’s Taxonomy.
- **Kathy Schrock’s Guide to Everything** – Aligns apps for Apple, Android, and Google devices with Bloom’s Taxonomy, in easy-to-follow charts.
  schrockguide.net/bloomin-apps.html

“I failed my grammar test. I used the wrong emoticon at the end of a tweet.”

Schools nationwide are acknowledging that mobile devices – tablets, smartphones, e-book readers, and other devices – are emerging tools for 21st century learning. While there are some challenges to overcome in making the transition to instruction and assessment via mobile devices, there are clear advantages to integrating their use in the classroom.

The flexibility of these devices supports any classroom setup and instructional approach. Teachers who understand their students’ individual needs can align the use of these devices with their instructional approach, for optimal results. Mobile devices support “flipped classrooms,” where learning gaps are discovered before lessons are planned, so that those deficiencies can be addressed before student performance suffers.

Equally important, mobile devices facilitate the formative assessment process. Student understanding can be gauged and recorded in ways that engage the students and simplify the teacher’s workload. And the ability to pose open-ended response questions allows teachers to help students develop the skills they will require for the Common Core Assessments.

References

3. Apple and Android tablets and phones, MimioPad™ wireless pen tablets, and MimioVote™ assessment.
For more information, see www.harrisinteractive.com.