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## **A Second Look at Mobile Technology in the Classroom: Don't Ban It. Use It!**

The misuse of smartphones in class frequently exasperates teachers. Instead of seeing this mobile technology as a nuisance, teachers can use it to their advantage. Smartphones can maximize collaboration, improve assessment, expand routine vocabulary lessons, augment out-of-class activities, and add multimedia tools to lessons, all while using technology that is both familiar and enjoyable to the students. The article highlights 3 free cross-platform software applications (apps)—Socrative, Edmodo, and Blogger. Each app is rated according to the following features: appearance, daily setup, ease of use, educational benefits, quiz format and grading, registration, speed, teacher control, tips/help, and user options. Evaluations, sample lesson activities, and walk-throughs are also included to emphasize each app's strengths.

Imagine this: Every student in a class has a laptop computer. What could teachers do with this resource? Imagine the opportunities for collaboration and the convenience of in-class research. Instead, the teachers tell their students that the computers must remain closed at all times and preferably turned off. What if, in this same class, the students also have camcorders, voice recorders, and cameras? And yet, the teachers give the same instructions: Turn them off and keep them closed. All use is prohibited.

Sounds crazy, right? But this is the way most teachers treat smartphones in class. Because smartphones can distract the students (i.e., texting, games, and ringing), they are treated as nuisances with their benefits ignored. Even though laptops can also be distracting (i.e., email, chat, blogs, games, and miscellaneous sounds), teachers work around this by focusing on their advantages. Smartphones deserve a second look.

### **Research on Smartphones in Teaching**

In the 2003 volume of *The CATESOL Journal*, Hanson-Smith made an accurate prediction: "We are very close to an affordable cell phone-PDA-computer-Internet combination ... that will give maximum mobility and convenience to the learner" (p. 27). Such devices have arrived and inserted themselves into the lives of many. According to a recent Nielsen (2012) study, "Almost half

(49.7%) of U.S. mobile subscribers now own smartphones” (para. 1). This popularity does not occur just in the US. According to a Canalys (2012) analysis, smartphones globally outshipped client PCs for the first time by the end of 2011 (para. 1).

Before the advent of smartphones, cell phones offered little to classroom teachers other than texting-based activities, but technology has changed. Smartphones have become so popular that “mobile learning has been adopted by a large number of schools and universities throughout the world” (Chao, 2011, p. 8). It is time to rethink the banning of smartphones. According to Becta (2010), a 2-year study at Accrington and Rossendale College revealed that smartphones could influence “retention and achievement, student enjoyment and engagement with learning” (para. 9). The director of the British Educational Suppliers Association, Ray Barker, claimed that “the [mobile] technology many pupils carried around with them was often more powerful than the equipment owned by their schools” (as cited in Shepherd, 2011, para. 15). Additionally, Naismith, Lonsdale, Vavoula, and Sharples (2004) found that “these [mobile] technologies are fundamentally changing the nature of learning” (p. 19).

### **Purpose**

The key to the effective use of smartphones, according to Naismith et al. (2004), was their “use embedded in classroom practice” (p. 10). With the teachers’ direction, smartphones with their software applications (apps) can complement lessons instead of disturbing them. The constantly increasing number of apps, as well as their increasing popularity, represents an opportunity to be exploited and not ignored, because it is the apps that really distinguish the smartphones for classroom use. The purpose of this article is to expose teachers to some of the possibilities that smartphones, via apps, can bring to the classroom and present ways of using these devices as learning tools. The information in this article will prepare instructors to realize the collaborative, mobile, and educational advantages of using Socrative, Edmodo, and Blogger with their students and to integrate the apps’ strongest features into their lesson plans.

### **Method**

Attewell, Savill-Smith, & Douch (2009) found in their Kingston project that smartphones were “most effectively deployed when learning activities focus on interactivity, collaboration, assessment and access to web-based multimedia content such as video resources” (p. 43). I used these criteria to choose the apps highlighted in this article. I chose only apps that were free because it is difficult for the teacher to insist that students buy apps. The apps also had to have wide user availability because even though smartphones are an asset in “collaborative and group learning” (p. 5), according to Naismith et al. (2004), individual access is better. For this reason, I chose Android and Apple devices, which made up “48 percent” and “32.1%” (para. 2), respectively, of the smartphone market, according to a Nielsen (2012) study.

The apps are organized by a rating system, which I based on the follow-

ing 10 features: appearance, daily setup, ease of use, educational benefits, quiz format and grading, registration, speed, teacher control, tips/help, and user options. Each feature is worth half a star, making five stars possible. The best and worst features of each app are listed alphabetically in the sections for advantages and disadvantages, while features that are sufficient but not exceptional also received a half star but no further description. Following each app are sample lesson activities. Walk-throughs of specific functions are included in the appendix for each app.

### **App Recommendations: App 1**

***Do These Scenarios Sound Familiar?** A teacher wants her students to respond to their peers' ideas, but the students are hesitant to be honest in their opinions. Socrative includes anonymous peer reviewing. Or a teacher wants to give his students an exit poll after each class, but he does not have the time in class and does not want the workload of collecting the papers each day. Socrative has a great system for giving exit polls and reporting the results.*

**Rating:** 4.5 of 5 stars

**Name of App:** Socrative (a.k.a. Student Clicker—Socrative; Teacher Clicker—Socrative) (2011)

**App Availability:** Free/Apple/Android/Web access

**Website:** <http://www.socrative.com>

**Evaluation:** Socrative is a student-response system with three question formats, oral and self-paced quizzes, and a team game. With a minute's registration for the teacher, students and teachers can start using it immediately. The menu is shockingly simple to get around. The best features are the immediate feedback auto-grading system, the anonymous peer reviews, and the premade three-question exit poll, all of which make it a great introductory app for teachers.

#### ***Advantages***

**Appearance.** There is no advertising. The menus are easy to scan, with the text set apart in light-colored boxes.

**Daily Setup.** None required, unless teachers choose to write a quiz in advance, which can be done online or via a simple color-coded Excel spreadsheet.

**Ease of Use.** Simple and intuitive for students and teachers with few technical skills.

**Educational Benefits.** Quick peer reviews are available for oral short-answer quizzes, and a simple but effective three-question exit poll is included.

**Quiz Format and Grading.** Automatically graded quiz questions can be multiple-choice or true/false; short-answer questions are also available. Oral quizzes can be given on the spot, and preplanned quizzes can be created online or in a simple color-coded Excel spreadsheet. Teachers can also view the live progress of their students during quizzes.

**Registration.** A teacher account is required (email only) and takes 1 minute. No registration is required for students!

**Teacher Control.** Excellent. Once logged in, the students cannot interfere with how the app runs and can go only to the activity the teacher has initiated.

**Tips/Help.** They are easy to find (lightbulb icon) on the app pages and not overwhelming in number. During registration and later under “My Profile,” there is a helpful “Training Tour.”

### *Disadvantages*

**Miscellaneous.** The biggest inconvenience is that teachers can list only letter choices for the impromptu oral multiple-choice quizzes, as opposed to writing in the answer choices. Writing multiple-choice answers on the board is counterproductive for those wanting to save time.

**User Options.** Socrative lacks the flexibility to modify the app to suit specific needs; however, this also makes the app simpler to use for those unfamiliar with such technology.

### *Sample Classroom Activities*

1. **Goal:** For students to be able to answer questions and respond to their peers’ answers

**Level:** Intermediate

**Skill:** Reading

**Location:** In the classroom

**Description:** After students read a paragraph, teachers ask them to type the main idea, supporting point, most interesting sentence, and so forth into their devices. Teachers click “Vote on Responses” to allow the students to view their peers’ answers. Students can anonymously choose which answer is correct or their favorite choice, depending on the question asked.

2. **Goal:** For students to become more intimate with a topic by creating quizzes for their peers

**Level:** Advanced

**Skills:** Any

**Location:** In the classroom

**Description:** For homework, assign a student a topic or a reading text and ask him or her to create questions for his or her classmates. Give the student an Excel template file to complete on his or her computer. The student emails the file back to the teacher, who uploads it to Socrative, as described in the appendix. Run the quiz in class, and the results will be sent to the teacher.

### **App Recommendations: App 2**

*Does This Scenario Sound Familiar?* A teacher assigns a group project in a writing course, but she cannot verify that the students are sharing the work equally. Edmodo can help teachers observe and record the groups’ written collaborations.

**Rating:** 4 of 5 stars

**Name of App:** Edmodo (version 3.2) (2010)

**App Availability:** Free/Apple/Android/Web access

**Website:** <http://www.edmodo.com/>

**Evaluation:** Set up in a format shockingly similar to that of Facebook, Edmodo provides classes and institutes with an online way to communicate, assign and turn in homework, and give automatically graded and timed quizzes. With a few hours of training (materials are provided online) or self-taught practice, teachers can learn to use Edmodo effectively. Edmodo is a comprehensive educational tool, which has a lot to offer teachers who want to encourage their students to collaborate with each other on group assignments in and out of class, plan their lessons beforehand, and want to be more connected to their students outside the classroom.

### *Advantages*

**Appearance.** There are no advertisements, and the app's screen has only six options.

**Educational Benefits.** It has many of the communicative (i.e., posting and peer commenting) advantages of Facebook. Unlike Facebook, Edmodo offers teachers and institutes a secure environment to interact with students and for those students to collaborate with each other.

**Quiz Format and Grading.** Multiple-choice, true/false, cloze sentence, and short-answer formats are possible as premade quizzes. Quizzes in Edmodo are automatically graded, when possible, and the results are available immediately. The teachers can view the live progress from their computers but not their mobile devices. They can also export the grades in csv format, which will open in Excel and list the grades of each quiz next to the students' names.

**User Options.** Edmodo offers several advanced features for interested teachers. Examples include creating small groups within any class group, posting polls and alerts, sending files, awarding student achievements with "badges," personalizing the site with users' avatars, adding due dates and other events to the students' Edmodo schedule, and adding links, files, or media to the quiz questions. The library, where attachments are stored, has a direct link to Google Docs.

### *Disadvantages*

**Ease of Use.** Edmodo takes a greater time commitment to learn to use unless teachers already have experience with similar programs, such as Facebook. In the mobile app, quizzes cannot be created, monitored, or graded, but teachers can do these on a computer. Additionally, despite being similar in format to Facebook, it is not nearly as popular, so students are not likely to check it as often. However, it is possible to set the notifications to either text message or email the students, which will help them stay connected. Another potential drawback is that its similarity to Facebook may work against it if users are unable to find a familiar feature.

### **Sample Classroom Activity**

**Goal:** For students to participate equally in group writing and teachers to be able to monitor participation

**Levels:** Intermediate and advanced

**Skill:** Writing

**Location:** Outside of class

**Description:** After assigning students to small groups (in the class and in Edmodo), teachers assign a writing topic, and then indicate that, for grading purposes, the students must use Edmodo for all their essay collaboration and correspondence. Teachers should emphasize that equal participation is expected and outline how that might happen. For example, with three students in a group, each student can lead the work on one body paragraph and they all can work on the introduction, which would be good to start in class, and the conclusion. On Edmodo, within a small group, the students can do all the drafting via posts and comments, with the teacher able to view all the work. Along the way, set rough-draft deadlines to keep them on task.

**Caveat:** Students send the rough drafts to all their peers for reviewing in the comment section.

### **App Recommendations: App 3**

*Does this scenario sound familiar? A teacher sends his students to the library for research, but beyond their signing in and out, there is no way for him to be certain they are using their time for the intended purpose. The Blogger app can keep the students accountable and the teacher informed.*

**Rating:** 3.5 of 5 stars

**Name of App:** Blogger (2011)

**App Availability:** Free/Apple/Android/Web access

**Website:** <http://www.blogger.com/>

**Evaluation:** Its greatest advantage is that, once initially set up, it requires no more preparation from the teacher except to read (and grade) the students' posts and comments. For speaking and listening classes, Blogger takes advantage of the smartphones' built-in benefits, such as audio recording, video recording, and photographing.

### **Advantages**

**Daily setup.** None. Once Blogger has been set up to allow students to make posts and comments, there is nothing more to do.

**Ease of Use.** Few technical skills are required to set up and use Blogger. Because the app has only a few functions, namely posting, commenting, and viewing posts, it is easy to get around.

**Educational Benefits.** Accountability. It offers teachers minute-to-minute updates of students' activities during field-trip assignments, such as to the library or store. It is also a place for online storage of videos and photos so students can review their peers' assignments.

**Registration.** Setting up the blog is simple and requires only a Google account and a blog name.

**User Options.** The app is limited, but Blogger has several advanced options if the user needs them. The options include changing the blog's template and moderating students' posts.

### *Disadvantages*

**Appearance.** There is advertising added by Google to the blog but not to the app.

**Teacher Control:** Students can upload content at any time and not just for class activities. However, there is nothing anonymous about who is posting and such rights can easily be revoked.

### *Sample Classroom Activities*

1. **Goal:** For students to record a role-play and then review their peer's videos

**Levels:** Intermediate and advanced

**Skills:** Speaking and listening

**Location:** In the classroom or outside or a specific location

**Description:** Students practice and then record themselves presenting a role-play outside the classroom using the smartphones' internal video camera. Students upload the completed videos to Blogger, and teachers assign the videos as homework for their peers to watch and answer questions tailored toward constructive criticism in the comment section of each post.

**Caveat:** For advanced students, teachers can require them to record two drafts of the role-play before recording the final. This ensures they spend adequate time practicing.

**Supplementary App:** Students may want to use a simple video editor app, such as Videolicious for Apple or AndroMedia Video Editor for Android to delete unnecessary footage.

2. **Goal:** For students to learn noun-based vocabulary in a more practical and interactive way

**Level:** Beginner

**Skills:** Speaking and listening

**Location:** Wal-Mart, Meijer, or a mall

**Description:** Divide the students into pairs and send or take them to the store. Give each team a different printed list of 10 items, preferably numbered and with the topics scrambled. The pairs will use a smartphone to take a picture of each item, upload it to the blog immediately, with a title that matches the name on the list, and then find the next item. The goal is to find all 10 items and be the first to do so. Once the pairs finish, they can view their results on the blog, which will show the times when the items were found.

**Caveat:** Use the blog as a quiz so the students can decide if the items' names and pictures match.



## Considerations

Some challenges come with using smartphones and apps in the classroom. For example, only a limited number of apps make the cross-platform jump (i.e., it is difficult to find apps available for both Apple and Android devices). Other issues to consider include the small screen size of most smartphones, making it difficult for more than three students to see it at the same time. Last, teachers will need to create new classroom policies for preventing students from using them at the wrong times. Despite these difficulties, smartphones and apps are an invaluable resource to teachers inside and outside the classroom. Use them, don't ban them!

To download apps, go to [www.itunes.com](http://www.itunes.com) for Apple and [play.google.com](http://play.google.com) for Android devices.

## Author

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## **Appendix** **App Walk-Throughs**

### **Socratic Walk-Through: Give an Impromptu Short-Answer Quiz Question With Peer-Reviewed Answers**

1. From the main menu, teachers choose “Short Answer” from the list of three “Single Question Activities.”
2. Immediately, the students’ devices will show a blank box to write in the answer.
3. Teachers ask the students a question orally. Their screen will show the results as a list.
4. Before the peer review begins, teachers can click the red and white x to the right of an answer to remove it from the list of peer-reviewed responses. Click on it again to return it to the list.
5. Now click “Vote on Responses,” so the students can choose the best of their peers’ answers.

### **Socratic Walk-Through: Create, Import, and Administer a Quiz**

1. Click “Manage Quizzes” and then “Create Quiz.” \*
2. Write a question by clicking “Multiple Choice” (this includes true/false) or “Short Answer.”
3. Enter the question, the answer options, checkmark the correct answer(s), and then add an optional explanation for the question. For the short-answer format, just write the question.  
\*Teachers can click “Import Quiz” instead to download and upload the Excel spreadsheet template. In the spreadsheet, all the required parts are highlighted and numbered.
4. Return to the “Main Menu” (upper-left screen arrow) and click “Quiz-Based Activities.”
5. Choose a saved quiz from the drop-down menu and decide if the students should move at their own pace or at a pace set by the teacher.
6. As soon as the quiz begins, the students’ devices will list the question and answer choices for each question. The teacher’s device will display the “Live Results.”
7. Click “End Activity” when finished and the results can be emailed to the teacher or downloaded immediately as a spreadsheet.

### **Edmodo Walk-Through: Read, Write, and Reply to Posts**

1. From the smartphone app home screen, click on “Posts,” which is one of only six icons.
2. The teacher’s screen will list the posts, with the top one being the most recent post.
3. To post a reply to a specific post, click the plus sign to the right of the original post.

4. To write a new post, click on the icon shaped like a pencil in motion, which is at the top right of the screen.
5. Teachers will have the option of writing to one or more particular students or to the whole group. Students can write to their classmates or to any of the groups (classes) they have joined.

**Edmodo Walk-Through:  
Create and Administer a Quiz**

1. Once the teacher is logged in, the home screen appears. There are menu bars at the top, right, and left. In the top central area, below the top menu, the word "Post" is followed by five options, with an icon to the left of each word: "Note, Alert, Assignment, Quiz, Poll." Click on the word "Quiz."
2. Click "Create a Quiz," found in a rectangular block and appearing just below the five options.
3. Give the quiz a title in the top left box. To the right of that box, write the number of minutes available for taking the quiz in the box called "Time Limit."
4. Below the title are the instructions: "Add your first question to start the quiz." To the right of "Type," choose a question type from the drop-down menu, and then click "+Add First Question."
5. Insert the question prompts and responses in the indicated boxes. Teachers can add links, files, or media to all the question types and to the multiple-choice answer options.
6. Click "Set as Correct Answer" when finished with a question. Then click "+Add" at the top of the left-side menu to automatically create a new question.
7. When finished, click "Assign Quiz," found in larger letters at the top of the right-side menu.
8. A new page will appear, requiring the user to enter a deadline date and asking if the quiz score should be added to the grade book. Then write the name of the group or individual(s) who should take the quiz in the box below the date.
9. The students will immediately receive a posting indicating that the quiz is ready to take.

**Blogger Walk-Through:**

**Set Up the Account for Students' Use as Authors and Commenters**

1. Clicking on the name of the blog from the entry screen will bring up the main blogger menu.
2. From there, go to "Settings" at the bottom of the left-side menu.
3. Note that the "Permissions" section is at the bottom of the new screen. Under it is "Blog Authors." Click "+ Add authors" and insert the students' email addresses. The students will receive an email asking them to confirm and set up their Blogger account.
4. Return to the left-side menu. Under Settings is "Posts and comments." Click that and then note the "Comments" section at the bottom of the new

screen. Now click “Registered User” under the heading “Who can comment?” The teacher also has the option here of becoming the moderator of all posts, a time-consuming task. Only choose this option in response to students who abuse their posting privileges. Beside “Comment Moderation,” click “Always.”

5. Last, in the left-side menu, click “Language and formatting.” The “Timestamp Format” and “Comment Timestamp Format” drop-down menus need to list the date and the time of each post.
6. Now only the teachers and students in this class will be able to post, comment, and upload content such as videos and pictures, while any student or teacher can view the blog.