

Real-time student response systems in the classroom:

Benefits, drawbacks, and setup of cell phones for use in teaching.

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Since the recent breakout of cellular devices, these items have often been a distraction to students and have contributed to a less effective classroom experience. However, with the use of online polling software these devices can lend a hand in creating and taking quizzes, gauging classroom enthusiasm and understanding, as well as other applications for immediate learning. Furthermore, because most people have cellular devices, SMS technology offers a more familiar device than common polling devices and was more cost effective than purchasing such devices.

Using cell phones for quizzes presents a number of benefits. Cell phones are more accessible than using specific polling devices. Furthermore, cell phones can be more cost effective and allow instant feedback on quiz grades, allowing information to stay relevant. Cell phones also allow for open ended data retrieval, which entry model data responses systems usually do not. Another core advantage is the ability to provide real-time feedback to students – we found this tremendous advantage encouraged participation, set a norm around investment in reading, and allowed for real-time corrections to poorly worded questions. Students reported this especially increased the perception of testing fairness.

We have also experienced some drawbacks when using cell phones in the class room. The most prevalent were repeated connection issues that occurred with a small group of students; this kept certain students from participating, or in some cases an instructor's phone was substituted. Also, there was a slight amount of confusion in getting students registered using the same format; however, this dilemma is easily remedied as the errors in registration are visible to the instructor and easily changed. Students did not report any concerns about accessibility, and while we provided several subtle options for students did not have a cell phone or could not afford text messaging charges, no one took us up on the offer.

Below are instructions that one would need to start making quizzes and have students' grades automatically calculated using "PollEverywhere.com", which can easily be exported to excel:

1. How to setup a "Polleverywhere.com" account...

- a. Access "Polleverywhere.com" and click on the button saying "Sign up"
- b. To create a free account, simply fill in the information on the initial sheet
- c. The free account allows for testing and a limited number of users right away! To create more intricate accounts, access the "Pricing" button at the top left of the page – paid accounts allow individual phones to be linked in a persistent way with responses, which is a pre-requisite for using the grading feature.
 - i. Select the plan that suits you best, this will take to an information sheet. At the time we prepared this a K-12 account worked well for a class with less than 40 people. Other options exist for larger.
 - ii. Fill out the sheet and submit it to create the account

2. Making Quizzes

- a. Access "My Polls" and then Click on the "Polls" tab
- b. Click "Create new poll" This provides the interface for creating questions. Options include: types of questions asked, who is allowed to answer questions, and whether or not grades will be recorded
- c. Once a group of questions have been created, select all questions that will be in the presentation, then click "Group" – This will keep these questions together for organization and grading
- d. Select the questions again, now in their 'grouped' state.
 - i. Click on the link "Download as .PPT" or ".PPTX" to export to Power point

3. Grading:

- a. If you selected that grades be recorded, they can be accessed in the "Reports" tab at the top left corner of the website
- b. All 'grouped' grades will now be visible and can be downloaded into Excel files
 - i. Select the files for which reports must be generated
 - ii. Download these results into an Excel spreadsheet

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