

## **TechMatters: Is That Your Final Answer? Exploring a Free(ish) Alternative to Clickers in the Classroom**

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Over the past several years, educators have experimented with student response systems (aka clickers) as a means to increase student engagement and enhance learning. Clickers, for the uninitiated, are “an interactive technology that enables instructors to pose questions to students and immediately collect and view the responses of the entire class” (Carnegie Mellon, <http://www.cmu.edu/teaching/clickers/pdfs/clickers-pedagogicalvalue.pdf>). Studies of the effectiveness of such systems have been conducted across a wide-range of disciplines (Bruff, 2010), including library instruction. In general, results seem to suggest that such tools, when used properly, can improve the instructional experience for both students and teachers.

The problem for many libraries, however, is that such systems are often cost prohibitive. Typical systems require the purchase of both hardware and software. The cost of individual clickers varies, with a typical range of \$25-\$60 a piece (many schools require students to directly incur this cost, just like purchasing a textbook), plus hundreds more for software and receivers for each outfitted classroom. That’s a fairly steep price, particularly if you are in the exploratory phase and simply want to investigate the instructional possibilities. There are also non-monetary costs to consider, such as time spent working through your institution’s requisition process, acquiring backup from campus tech support, and time spent on training.

### **An Alternative – Poll Everywhere**

Poll Everywhere (<http://www.polleverywhere.com/>) is a web-based response system that allows participants to provide answers via text message, Twitter, or the web. Poll Everywhere has subscription plans which cost money, but it also provides a free plan that allows anyone in K-12/Higher Education to use the system when they have an “audience” (i.e., class of students) of 32 or fewer. Of course, because it is free, this version lacks certain features including multi-poll reporting, response moderation, and participant identification. For additional information on features and pricing see <http://www.polleverywhere.com/plans/retail>.

### **Getting Started**

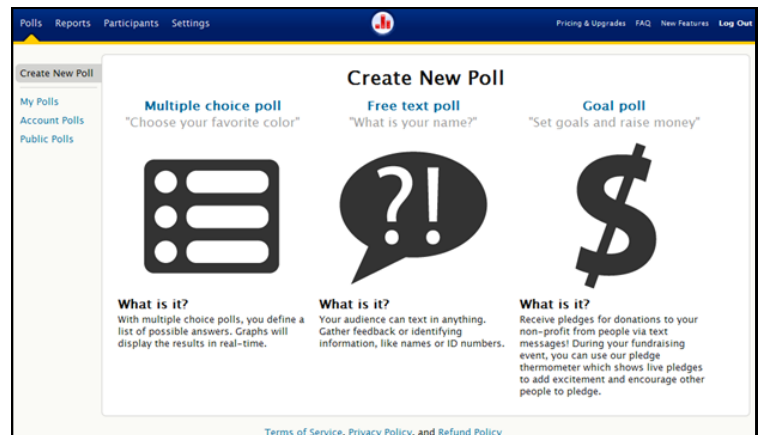
To create an account, navigate to the pricing page, select the type and level of account you want, and click the green “Sign Up” button. The only information you will need to provide is your name, e-mail address, and a password. Agree to the terms of service, submit your information, and “viola,” your new account is created and you are ready to start creating polls.

### **Create a Poll**

Poll Everywhere currently offers three types of polls (see Figure 1):

- Multiple choice, which allows you to define a list of answers and graph results in real-time
- Free text, which allows users to send open responses
- Goal, which is intended for fundraising purposes and allows you to receive pledges for donations.

For educational purposes, the first two types are clearly the most relevant.



**Figure 1: Polling options**

Start by selecting the type of poll you wish to create, which will take you to a straightforward web form where you compose your question (see Figure 2). In addition, you can specify how many times each participant may respond, decide whether or not to use a reply message, and indicate the methods participants can use to respond. Additional options for premium users include the ability to create a custom response message, specify “keywords” that can be texted in the place of randomly assigned numbers, and the ability to restrict and/or identify who may respond to a poll.

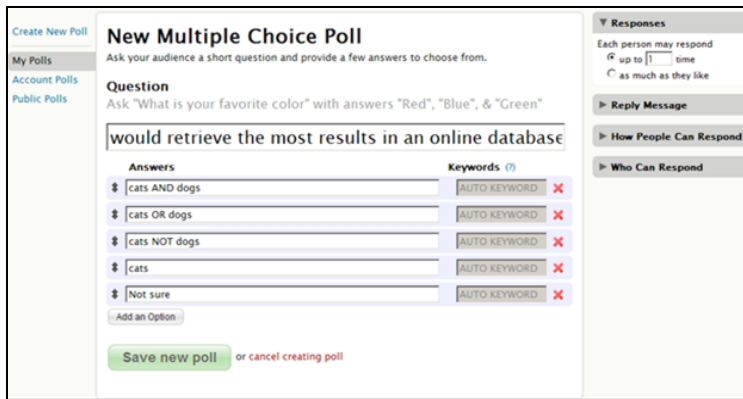


Figure 2: Creating a multiple choice poll

### Launch and Share Your Poll

In order to begin receiving responses, you must “start” your poll. You do so by clicking on the large “Start Poll” button located on each individual polling question screen (see Figure 3).

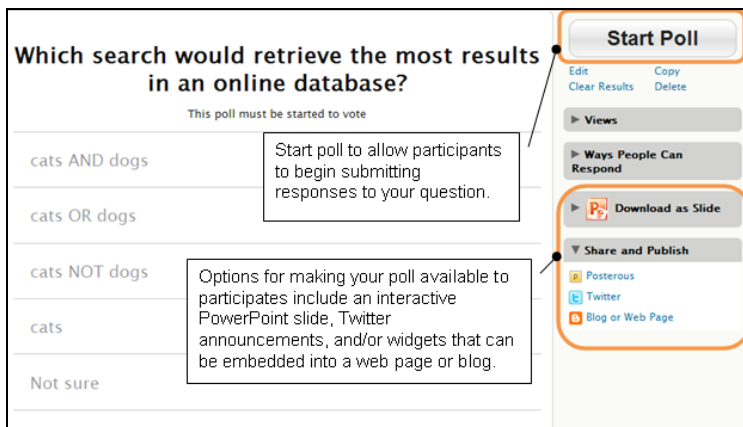


Figure 3: Publishing your poll

Once your poll is live, you need to let your users know it is available, as well as how they can respond. Poll Everywhere provides a variety of options including a static URL that you can e-mail to participants or place in a web page, a downloadable slide that can be embedded into a PowerPoint or Keynote presentation, code for a web widget that can be embedded into any web site or blog, as well as the option to tweet your question to your followers with a link back to the web response page.

### Getting Responses

There are four ways that students can respond to a survey question: text messaging, web voting, Twitter, and via a smartphone-optimized web page. No matter which method the students use to respond, it all gets submitted, tabulated and updated in one place (see Figure 4).

### Text Messaging:

Each answer in your poll question(s) is assigned a unique numeric code. These code numbers (e.g., 28110 or 28128), along with the number to send them to (e.g., 22333), is displayed in the interactive poll results screen (see Figure 4). When students text the code that corresponds with their response to the number provided, their vote is recorded and the results screen is automatically updated to reflect their answer.

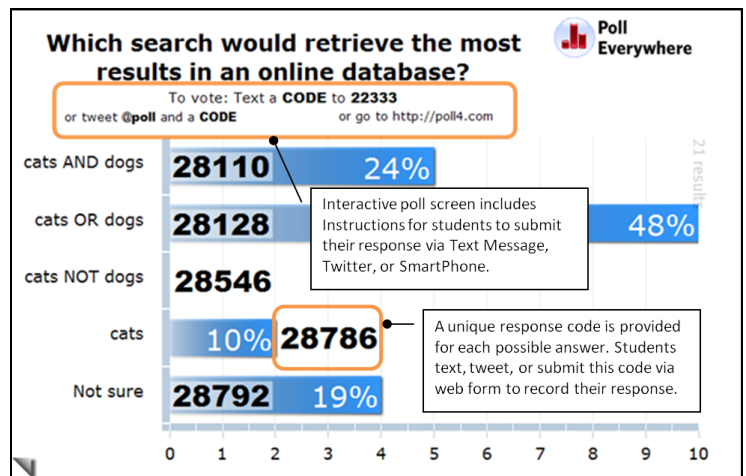


Figure 4: Interactive results screen

### Web Voting:

Poll Everywhere provides you with a URL that can be shared with your participants. Assuming you are teaching in a room with computers and internet access, this option allows students who don’t have cell phones, or prefer not to use them for this purpose, to submit their answers directly via the web.

### Twitter:

Another option for users who don’t want to text a response is to tweet their response on Twitter. To register their response, users need to include “@poll” in their tweet, along with the appropriate code (for multiple choice polls) or comment (for free text polls). Poll Everywhere says they will “pick up the response as fast as Twitter allows.” In my experience, results from Twitter come through as quickly as any other response method, although it is true that at certain times of the day Twitter slows down significantly (or even stops working completely) which would impact results submitted this way.

(Final Answer...Continued on page 10)

*(QEP...Continued from page 9)*

Second: help the teaching librarians grow. Not all librarians will be as comfortable with teaching as the main instruction librarians in your library, but everyone should be able to advocate for the need for information literacy. There is a difference. Make information literacy part of the common story in your library. Send librarians to ACRL Immersion, if you can. But, if you cannot, then take time to do in-house workshops where everyone can feel that they are a part of the information literacy effort.

Third: Remember the power of data. It was very clear to me that although other faculty, and even students, had great ideas for possible QEP topics, they could not prove the need at Trinity. In the library, on the other hand, we had been collecting data for five years (and so had other libraries, based on our lit review) that we could use to prove the value of information literacy. We collected simple things like the “one minute paper” or “two things I

learned today” and we also had more advanced data from the Research Practices Survey we took part in. The message here is to try and collect something and be ready to do something with it. Think about what you’re evaluating from your library instruction and make it purposeful.

### Where Trinity is Now...and Where Trinity is Going

Trinity has completed year two of the QEP, including the faculty workshops that take place every May. The greatest success this year was, in my opinion, that assessment is no longer a bad word with faculty and that most of our faculty participating in this year’s QEP grant process, funds that are supported through the QEP budget, actually created some authentic assessment out of their assignments and have data to support the integration of information literacy in their courses. The potential for information literacy is growing beyond grant courses, as faculty who have good experiences with their students work are now integrating information literacy in courses

*(QEP...Continued on page 12)*

*(Final Answer...Continued from page 7)*

#### Smartphone:

Finally, Poll Everywhere provides a simple, smartphone optimized web interface for users with web-enabled mobile devices. As with the text messaging, users submit the response code associated with their answer. The primary advantage of this method, over text messaging, for smartphone users is that they will not incur any SMS message fees.



Figure 5: Smartphone interface

### Polling in Action

There are a variety of ways that polling questions can be used to support instruction during a session. One option is to use questions to assess students’ knowledge of the topics to be taught. The responses can be used to adjust the time spent on particular concepts. In addition, questions can be used to gauge student learning and help to determine whether additional instruction is required before moving on to the next topic. Responses to free text questions can be used to stimulate classroom discussion as students may feel freer to express their opinions if the initial response is anonymous.

With its free account option, Poll Everywhere is a tool that will allow you to experiment with and assess the efficacy of a personal response system in your classroom with very little financial investment. When used effectively, these systems can stimulate student interaction and enhance learning, so go ahead and give it a try!

### References

Bruff, D. (2010) *Classroom Response System (“Clickers”)* Bibliography. Vanderbilt Center for Teaching. Retrieved from [http://cft.vanderbilt.edu/teaching\\_guides/technology/clickers/](http://cft.vanderbilt.edu/teaching_guides/technology/clickers/)