

Repurposing Digital Devices: Using Poll Everywhere as a Vehicle for Classroom Participation

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Intended Course Usage

Small discussion courses and large lectures using group activities

Rationale

McCroskey (1980) explains, “Most teachers enter the profession to help students. Yet, with the possible exception of parents, teachers have an unparalleled potential for harming young people. Unfortunately, that potential is realized far more often than we might think” (p. 239). This statement is illustrated through student participation. In particular, introverted individuals may find dread or actively avoid oral participation while, inadvertently, extroverted students may dominate discussion for the sake of moving forward, giving quieter students unspoken permission to remain silent or, worse, not pay attention.

Usage of smartphones and laptops exacerbates the issue. McCoy (2013) surveyed 777 students at 6 colleges and universities finding that more than 90% of students admit to using digital devices for non-class activities during class, and more than 60% admit this usage was distracting to learning. Dahlstrom, Walker, and Dziuban, (2013) found that undergraduate students typically own two to three internet-capable devices, yet are “ready to use their mobile devices more for academics, and they look to institutions and instructors for opportunities and encouragement to do so” (p. 4).

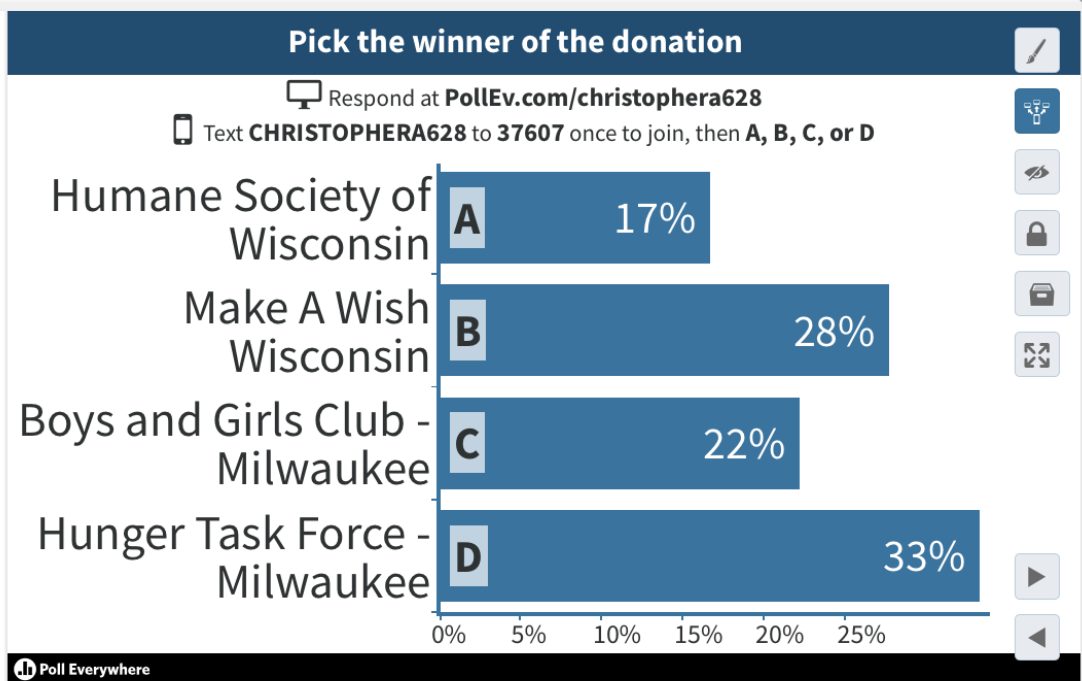
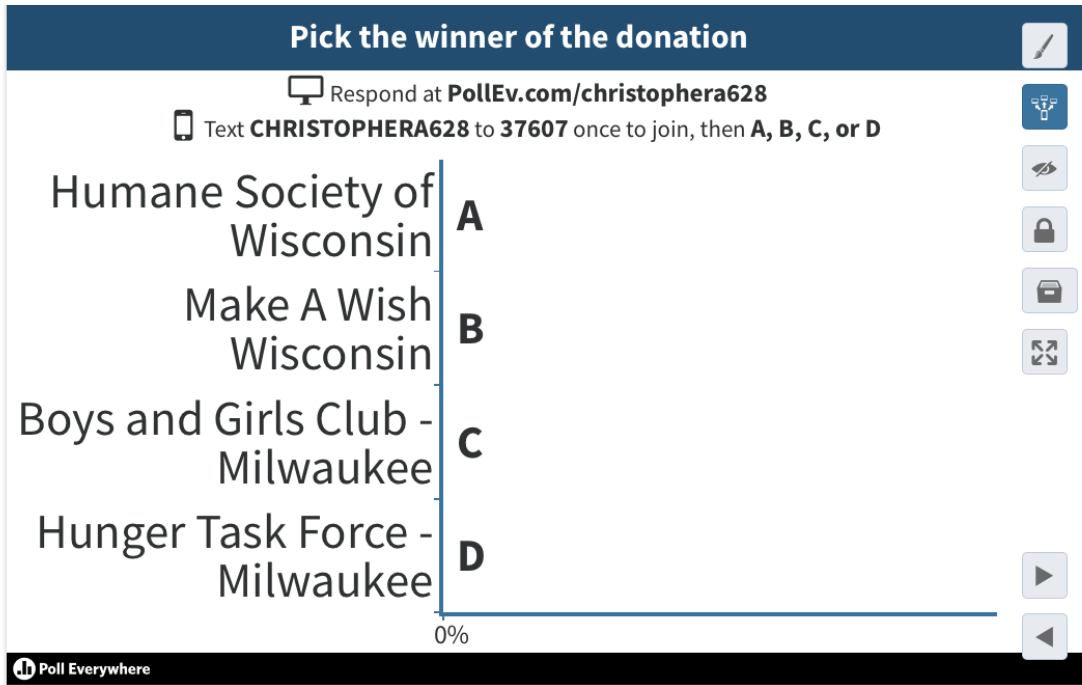
Developing participation activities using digital devices for participation can help with this issue. Ultimately, objectives for utilizing such activities should be to increase participation, increase comfort communicating in a variety of contexts, and add to the ways digital devices integrate into classrooms to enhance learning outcomes.

Activity Description

This activity utilizes real-time polling applications such as Poll Everywhere (<https://www.poll.everywhere.com>). Poll Everywhere requires the use of text messages, or Twitter. The function is similar to viewer participation on reality shows such as American Idol where viewers text information to a specific telephone number to cast votes, answer questions, or offer opinions. Results appear on a displayed screen within moments.

The screenshots below were taken during one of my classes. The students were tasked with advocating for a local charity, and then the class voted to see which charity would receive a donation. The first picture shows the blank poll before voting begins. Viewers are given voting

options at the top the screen asking them to text CHRISTOPHERA628 to the number 37607. Once they have done this they are prompted to vote upon one of the charity options listed in large print by sending an additional text to the same number with one of the letters corresponding to the charity. In seconds, the poll begins to populate answers seen in the second screenshot below.



Viewers text in answers individually and anonymously, and are able to watch the results appear on the screen in front of them in real time. After any poll, instructors can engage in discussion regarding the answers without requiring participants to reveal their choice, thus removing the stigmas that keep many introverted students from orally participating. Though not all students may participate in the verbal discussion due to time constraints, the novelty of the activity can increase student attention. Stover et al. (2015) found that real-time polling engages students in the learning process, and has shown a positive impact on perceived student learning.

This activity can take as little as five minutes if only one question is asked, but incorporating this activity on a daily or weekly basis presents a stronger pedagogical foundation by establishing expectations of regular participation. This helps to avoid issues where instructors incorporate techniques they have recently learned and attempt them only once. Realistically, neither instructor nor student may be prepared for an activity on the first attempt – nor have expectations or consequences of such a process, which can lead to abandoning activities that may prove fruitful. A one-question format contains value as a daily attention getter by preparing a question relevant to the day's subject matter, displayed while students arrive to class, asking them to reply to the question to begin discussion. Entire class periods may be filled if a series of questions have been adequately prepared, or embedded in a PowerPoint presentation provided Internet connection is available. These applications may additionally be considered as a method of communication to attempt an entirely silent day of course work to show students that learning need not always contain a verbal component.

Links to questions posed in these applications can be accessed via the Internet, which creates the possibility of polling students outside of a physical classroom. When conducting surveys in this manner the ability to immediately debrief the class as a whole is lost, but students can still report through written assignments, discussion boards, or other likewise activities.

Debriefing

Instructors can use polling applications to gauge student interest in subject matter, determine student comprehension, and/or conduct simple real-time experiments. Regardless of purpose, continued attention should be given to poll results. Verbal discussion can be used, though utilizing full text functions within the application offers a pedagogically sound method of allowing everyone to ask questions and add comments, which, again, allows any student to contribute regardless of classroom comfort level. Poll results are downloadable for personal records or data collection. Like any data collection, consider what purposes exist for collecting the information provided and what measures are needed to prepare to use this data.

Appraisal

Students are intrigued by this activity for a variety of reasons. A survey of student use has shown positive reception of the technology with many of the students explaining feeling more engaged when Poll Everywhere was used (Kappers & Cutler, 2015). Shon & Smith (2011) found that 90% of students felt it helped in learning class material, while over 80% recommend its use. For some, the opportunity to use cell phones, tablets, or computers in class creates excitement. It may be prudent to remind students to remain on task. For others, value is found in that everyone in the class actively participates simultaneously. Further, though it has an element of pandering to it, there is some entertainment value in watching the live-building results.

Real-time polling applications are not without their limitations. Instructors choosing to utilize only the free services provided are limited in the number participants that can be used in each poll. For example, Poll Everywhere constrains free polls to only 40 participants. However, no regulations prohibit one from recording or downloading results and resetting a poll for further use with the simple click of a button. The limitation of only forty participants might seem a deterrent toward implementing this technology in large populated lectures, but options for usage remain. Group work creates the potential for group response. At five students per group, forty groups can engage 200 persons in a poll, allowing instructors to segue results toward discussion once groups have responded. Regardless of the lecture size, full text functions serve as a method of soliciting questions from the class. This eliminates the need to solicit volunteers from the crowd and allow students who prefer to remain silent to ask questions without worry of embarrassment or judgment.

One additional drawback to the free usage plans is complete anonymity on the part of the sender. The instructor cannot discern who has responded to questions nor police the responses before they appear. Instructors may choose to freely broadcast this information to students, or simply omit it from the instructions. If extended use of this technology is desired, or the instructor wishes to remove the anonymity from the activity, Poll Everywhere offers a student-pricing plan at fourteen dollars per a year. This is more affordable than the standard price of a clicker, and more difficult to misplace. Paid features include response moderation and tracking, team competitions, and grading functions. Further, standard fees apply to text messages sent to most polling applications. However, it may be safe to assume that many students either have unlimited texting plans or do not care about fees associated with high volumes of texting since Experian Marketing Services (2013) found 18-24 year olds send and receive an average of 3853 texts each month.

As the number of digital device users continue to increase and as campuses commit to utilizing these devices to conduct coursework and research, Rocchio (2014) notes that “campus IT organizations will need to support high expectations of ubiquitous wireless connectivity and to support students who want to use their devices for in-class activities and in-field research” (p. 1). AUCTA, the Association for college & University Technology Advancement, (2014) surveyed 412 unique colleges and Universities in regards to residential network or ResNet. They report that 38% of these institutions increased their ResNet budget while 10% saw budget decreases. Regardless, they found that 67% of IT and Housing Officers anticipate increasing costs in maintenance and expansion of ResNet availability for digital devices. If your campus struggles with bandwidth allocation, consider which portion of the semester you might use this technology as increased demands for wireless connectivity generally peak at the start of semesters, during registration periods, and surrounding midterms and finals.

Materials Needed

- Internet access.
- Projection equipment.
- Students with text-capable phones and/or twitter.

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