

The Power of Learning Catalytics

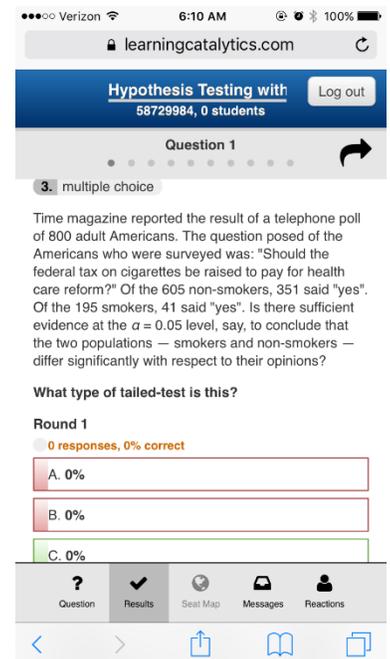
The Power of Learning Catalytics

While teaching any particular class, I can look out at the sea of students and see a variety of behaviors. I can see the students who are intently engaged and hooked on every word I say. They are feverishly writing down all notes on their paper or tablet. I can see the students who are listening but not writing. Since I provide the completed lecture notes after class, they can listen first, then review later. I can see the students who are staring at the computer screen. They are probably looking at the lecture notes that I'm discussing now. I also see the students who are also using their phones to "take notes".

How do I know that they are actually understanding the material? I will ask a question and give them all wait time to think about it! I ask, "How can we change this observational study into an experiment?", and 2 out of the 42 mumble something. "One more time and louder please. Yes!! That's it. You have it!" I reply. So what about the other 40? What are they thinking?

Here is where Learning Catalytics enters. Learning Catalytics is a bring your own device (tablet, computer, cellphone, etc) response tool. There is no software to download. There is no additional device to connect. Students log into the website, and they can answer questions that you have created or copied from the question bank. You can also create questions on demand as well.

You have the power to know what all 42 students are thinking!
Among the 18 different question types, you can give multiple choice,



short-answer, long answer, and sketch the graph questions. You can start a question, give students wait time to complete it, then they can enter their answers. You can show the percentage of students who answered the questions correctly in addition to the answers the other students selected. You can choose to spend more time on a topic if students seem not to understand or conversely, you can spend less time on a topic if students have mastered it. You can complete think-pair-share activities. You can give everyone the ability to answer the question first. Then, you can let the software create pairings or groups to discuss the question, then students resubmit their answers. You can grade the students' responses or use it for participation only. As an instructor, you can also use your computer to display the results as you walk around with your cellphone to monitor progress.

3. multiple choice

Time magazine reported the result of a telephone poll of 800 adult Americans. The question posed of the Americans who were surveyed was: "Should the federal tax on cigarettes be raised to pay for health care reform?" Of the 605 non-smokers, 351 said "yes". Of the 195 smokers, 41 said "yes". Is there sufficient evidence at the $\alpha = 0.05$ level, say, to conclude that the two populations — smokers and non-smokers — differ significantly with respect to their opinions?

What type of tailed-test is this?

- A. Left-tailed test
- B. Right-tailed test
- C. Two-tailed test

Round 1



5 responses, 80% correct

A. 20%

B. 0%

C. 80%

What have I seen in my classes with using Learning Catalytics? I have seen excitement. Yes excitement, in a Statistics class on the days that we use it! I have had students to ask, "Can we have more problems this way?" I have the ability to track who is in class in addition to knowing who is truly understanding the information immediately. Students can also submit questions to me directly which helps those students who might be afraid of asking a "dumb question". Since students are actually working out the problems instead of just blindly copying down lecture notes, they can see for themselves if they know how to work out problems. We

have more “ah-ha” moments during class versus waiting until they get to their homework to practice.

You have the ability to use technology to engage your students rather than it being another distraction for them. Learning Catalytics puts the power of assessment and engagement literally in your hands.