

Random Number Generator for Student Selection



Brief Summary

Often the same select few students speak more frequently in class than others and trying to implement a method of keeping track of each individual student's participation is a challenge. Using a random number generator (RNG) application on a tablet, website, or scientific graphic calculator can assist with calling on different students to participate in a class discussion or to answer questions that arise during a lesson. To use a RNG, assign each student a number (a class roster in alphabetical order is quite convenient for assigning numbers). Teachers can share this number with students or keep it confidential. Run the RNG to obtain a random number and then call on the student who is assigned to that number. This student might answer a question or pose a question for the discussion.

There are different settings for RNGs. For instance, choosing to repeat or not repeat numbers can change how often students may participate. Additionally, RNGs can produce a set of numbers at one time, which can be used to arrange students in groups, or choose group leaders.

Example Use in STEM EDA

Class discussions can be well utilized after students read material and to check for understanding. Suggested articles and reading materials are provided throughout all STEM EDA modules and are often located in Step 2: Research the Problem of the Engineering Design Process. Utilizing any of the reading materials as foundation content to a classroom discussion can be beneficial and will assist students in Step 3 when they brainstorm solutions. Also, consider using a classroom discussion at the conclusion of Step 6: Test and Evaluate the Prototype. Use RNG to call on students and ask them to share at least one element of their prototypes that worked along with one area for improvement. Continue with calling on several other students using the RNG. The information discussed can later be used during Step 7: Improve and Redesign.

Ideas on Implementation

1. Monitor all students to ensure those who are not called on are being good listeners. You may suggest students to take notes when they are not a part of the discussion.
2. Save the results of using the RNG. If there is not enough time for every student to be called on during the class discussion, make sure to input the numbers of students who did not get selected into the RNG for the next discussion.