Increased Motivation and Class Engagement

USING ONLINE RANDOM VOLUNTEER GENERATORS

Dr. Jean-Francois Chamberland (Professor, Electrical Engineering) has found success in **motivating students to come to class and keeping them engaged**. He employs a **random volunteer generator to ask questions** directly to participants in the class, both on Zoom and in person. The generator application (**Python**) is straightforward, and instructors can run an interpreter on Google Colab (in the cloud), without having to install anything on their machine, other than a Chrome app (browser). An approach not using coding is a **Random Student Selector**, the class roster would be copied and pasted in to randomly generate. Dr. Chamberland **encourages peer instructors to try it out** and report on how it's working for them since it has been a beneficial addition to his course dynamics.

Applying This Method

01 This method relies on a random number generator to select a student from the class. Names and student pictures are obtained from Howdy. However, Howdy pictures and student names are not shared with others in the course.

02 The application, Python, returns a student's name and their picture every time it is called. The random "volunteer" generator is used to ask quick questions in class. This method can also be leveraged to estimate attendance through sampling. The success of this method relies extensively on frequent queries about the topic we are studying.

03 When a student is randomly selected it has been noted that some students do not like the spotlight and would rather have the ability to shy away from being picked altogether. To alleviate the negative aspect of random volunteer generation, give the selected student the option to pass the question to someone else (as long as they know their name).

04 While using this technique, make sure the environment and class culture remain welcoming and conducive to everyone's learning experience. Thank volunteers for participating, tell students that you are glad they are in class, and often explain that when someone is the center of attention. **Overall, anecdotal evidence seems to indicate this technique contributes to high attendance and a high level of attention while in class.**

Benefits & Advice

One lesson that Dr. Chamberland reminds himself of is that, while using this technique, the environment and class culture remain welcoming and conducive to everyone's learning experience.

One of the challenges is that, when presenting online or screen sharing in a learning studio, you almost need a second computer to pick random volunteers. While teaching online, use two monitors.

"I am a fan of this method, and it is a consistent part of my class dynamics"
-Dr. Chamberland

" I believe random generation helps students become more comfortable to speak in front of a group, which is a great side-benefit."
-Dr. Chamberland

In order to ease student concern, Dr. Chamberland spends time during the first week explaining that the class is going to use a volunteer generator because he believes it benefits their learning. He also offers to address concerns privately, if any.

Never let questions linger too much. At the same time, try to prevent other students from jumping in too fast. Ask the class to "not steal the learning opportunity from the designated student."