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Adam F Childers (childers@roanoke.edu), VA , and **David G Taylor*** (taylor@roanoke.edu). *Classroom Stats: The Classy, Real, and Simple Solution to Modernize and Increase Engagement in Statistics Classrooms.*

Randomized comparative experiments are a foundational part the statistics education and are one of the most practical and useful ways to find causal relationships. Teaching these methods is done in every introductory statistics course but conducting them in the classroom is challenging. Efficiently randomizing the class, collecting the data, and then analyzing it is not trivial and can be time consuming. In this talk we will show how to use the free data collection and analysis platform Classroom Stats to conduct and analyze randomized comparative experiments, live in class, in a matter of minutes. Combining two technologies – a web application instructors use to design the experiment and analyze the data along with a mobile application students use to enter data – Classroom Stats makes conducting randomized experiments easy. The speed and efficiency of conducting these experiments gives students multiple repetitions with the entire statistical process and uses student data which have both been shown in the statistics education literature to promote skill retention. (Received September 14, 2020)