1077-E5-2429 **Chris Oehrlein*** (cdoehrlein@gmail.com). *Introducing Sampling Distributions and Hypothesis Testing using Hands-On Simulations and Student Response Technology.*

While computer applications can generate results and graphs representing thousands of trials of a simulated study, students can be left without a sense of ownership of the concept of a sampling distribution and how it is used in hypothesis testing. Trusting that the application and its representations were programmed accurately, they can learn from watching the sampling distribution grow, and it's mean and standard deviation change as the number of trials increases, but they are still not completely active participants and learners if they are doing no more than pressing keys or selecting options on a screen. Before this computer-simulated example can solidify the statistical concepts, students need to have a more concrete experience that includes predicting some expected value that a random process might generate, actually performing or simulating the trials themselves, and deciding if the actual data is a rare or common occurrence based on their outcomes as a class. Collecting this data from a class or groups of students can be a daunting task. Student response technology (clickers) used with a statistical analysis package can generate tabular and graphical representations of the partial sampling distributions quickly in a format that can be easily analyzed. (Received September 22, 2011)