Designing Simulated Experiments in the Introductory Statistics Course.

This is the culmination of a three year National Science Foundation Grant, DUE TUES #1043814, which focused on the development and implementation of web-based games and corresponding investigative laboratory modules (labs) to effectively teach statistical thinking and the process of scientific research. We demonstrate game-based labs that follow the GAISE guidelines and bridge the gap between short, focused homework problems and the open-ended nature of a research project. This presentation will focus on one game-based lab where students design and conduct a study to determine whether factors such as location, time of day, price, type of music, or some combination of these influence sales in a small business. These game based labs provide project-based materials that emphasize real-world applications and conceptual understanding. These materials are designed to show students early in their academic career the importance of proper data analysis in any discipline. (Received September 17, 2013)