1023-62-1

Ivo D Dinov* (dinov@stat.ucla.edu), 8125 Math Sciences Bldg, UCLA Department of Statistics, Los Angeles, CA 90095, Juana Sanchez (jsanchez@stat.ucla.edu), 8125 Math Sciences Bldg, UCLA Statistics, Los Angeles, CA 90095, and Nicolas Christou (nchristou@stat.ucla.edu), 8125 Math Sciences Bldg, UCLA Statistics, Los Angeles, CA 90095. Pedagogical Utilization and Assessment of the Statistic Online Computational Resource in Introductory Probability and Statistics Courses.

The NSF-funded Statistics Online Computational Resource (SOCR) provides a number of interactive tools for enhancing instruction in various undergraduate and graduate courses in probability and statistics. These resources include online instructional materials, statistical calculators, interactive graphical user interfaces, computational and simulation applets, tools for data analysis and visualization. The tools provided as part of SOCR are designed to bridge between the introductory and the more advanced computational and applied probability and statistics courses. In this manuscript, we describe our designs for utilizing SOCR technology in instruction in a recent study. In addition, present the results of the effectiveness of using SOCR tools at two different course intensity levels on three outcome measures: exam scores, student satisfaction and choice of technology to complete assignments. Learning styles assessment was completed at baseline. We have used three very different designs for three different undergraduate classes. Each course included a treatment group, using the SOCR resources, and a control group, using classical instruction techniques. We present our course designs, our directives on utilizing SOCR resources, our analyses of various outcomes and our findings. (Received April 07, 2006)