

Authentic Discovery Learning Projects in Statistics with Constructs from Environmental and Social Science Disciplines

This presentation will describe discovery learning projects for students in introductory undergraduate statistics courses for non-majors. The projects and related teaching methods are the cornerstone of work supported by a National Science Foundation grant, “Authentic, Career-Specific Discovery Learning Projects in Introductory Statistics”. Authentic research constructs were developed with input from an interdisciplinary team of faculty, including professors representing biology/ecology, psychology, sociology, and criminal justice. These constructs form the basis for projects in which students explore statistical relationships between constructs of their choosing. These projects focus on linear regression analyses and on various types of simple t-tests. Preliminary data suggest that students involved in these projects end the course with higher content knowledge and better attitudes about statistics than do students in sections where these projects are not used. Research constructs and sample projects will be shared.