

Managing Service Learning Projects in Statistics Courses

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A Definition of Service Learning

“Service learning is a form of experiential education where students participate in activities that integrate community needs with well-designed learning opportunities.”

Barbara Jacoby

“Foundations and Principles of Service-Learning,” *Service-Learning in Today's Higher Education*, 1996.

Service Learning in Statistics Courses at IUP

Step 1: I contacted the county Human Services Commission and asked to speak at one of their meetings. I described the possibility of having students in my classes work on statistical projects for agencies in the community.

Step 2: Two agencies contacted me for assistance. One was an addiction recovery center and the other was a counseling center. Both clients sent representatives to visit my classes. One project involved redesigning a survey and the other involved analyzing a large database.

Step 3: Working in groups, students in my classes over two semesters worked on these projects and prepared reports for the clients. The projects replaced my standard assignments using real but known datasets.

Obstacles

Some of the obstacles my students and I encountered included:

1. Obtaining specific research questions and objectives from the clients.
2. Obtaining relevant information from the clients in a timely manner.
3. Completing the work in within the time constraints of a semester schedule.
4. Distributing the work load equitably among the students and groups in the class.

Cross-Disciplinary Service Learning Teaching Circle at IUP

Colleagues from the IUP Culinary Academy, Psychology Department, and Hospitality Management Department have been meeting approximately monthly for the past two years to share ideas, identify common themes and problems, and to discuss research to assess the efficacy of service learning opportunities on student academic success.

We presented a panel discussion at the “Wings to the Future” conference at Penn State-Altoona in April 2005, and plan to present at the Lilly Conference on College Teaching in Oxford, Ohio in November 2005.

Resources

1. “Statistics as a Service Subject in First Level Courses,” Session at the Sixth International Conference on Teaching Statistics (ICOTS 6), South Africa, 2002.

Beth Chance, Organizer and Chair.

- “Community-Based Learning: Motivating Encounters With Real-World Statistics,” Trisha Thorne and Rob Root
- “Elementary Statistics International Travel Lab Component,” Robert A. Leslie
- “Enriching Introductory Statistics Courses Through Community Awareness,” Jon E. Anderson and Engin A. Sungur
- “Statistical Consulting With Undergraduates - A Community Outreach Approach,” Brian Jersky

2. “Service Learning in Undergraduate and Graduate Statistics Education,” Invited Papers Session sponsored by the American Statistical Association (ASA) Section on Statistical Education at the 2005 Joint Statistical Meetings (JSM 2005), Minneapolis, MN, August 9, 2005.

Thomas H. Short, Organizer and Chair

- “Service Learning through a Student-Run Consulting Program,” Nilupa S. Gunaratna, Craig A. Johnson, and John R. Stevens
- “Community Service Learning in Statistics: Course Design and Assessment,” Debra L. Hydorn
- “Service Learning with Undergraduates,” Brian Jersky
- KB Boomer, Discussant