Teaching with Case Studies:  
Students’ Summative Evaluations in an Environment and Sustainable Systems Course

Maria Navarro  
Assistant Professor  
Department of Agricultural Leadership, Education, and Communication  
The University of Georgia  
105 Four Towers Building, Athens, GA 30602-4355  
Phone: 1 – 706 – 583 0225  
Fax: 1 – 706 – 542 0262  
E-mail: mnavarro@uga.edu

Dennis W. Duncan  
Assistant Professor  
University of Georgia

Pavli Mykerezi  
Instructor, Virginia Tech

Abstract

Case study teaching helps educators better center the teaching and learning process on the students, and on the students’ development of communication and higher-order thinking skills. Case studies also help students analyze interdisciplinary, real-life problems, and thus provide a valuable tool for agricultural educators. Even though case studies had been used extensively in the 1990’s by teachers in law, business, education, and medicine, they had “rarely been used in undergraduate science teaching” (Herreid, 1994). In the last two decades, case study teaching in science has acquired increasing importance, but it is still a challenge for educators to develop, plan, implement, and evaluate case studies.

The objectives of the poster are to 1) visually present students’ summative evaluations of three case studies in an Environment and Sustainable Systems Course taught via videoconferencing, and in collaboration between faculty throughout world, and 2) to discuss how the results of the study could help instructors to better develop, plan, and implement case studies.

The three case studies of this study focused on biodiversity, food safety, and sustainable tourism. A different group of students was asked to respond to a Likert-type survey at the end of each case study (23, 28, and 15 students respectively). The survey had 21 items grouped in three constructs (student participation and interaction, course content and strategies, and use of technology), and also asked respondents to complement their quantitative responses with open-ended comments.

The analysis of the results provides agricultural educators with invaluable information to improve case study development, implementation, and evaluation. It also helps educators to continue expanding and enhancing available student-centered strategies and tools, and to help students develop higher-order thinking skills and analyze problems from an interdisciplinary perspective.

Keywords: Student-centered education, case study, interdisciplinary, higher-order thinking skills, evaluation