O159
Paper

Elissa Milto
Tufts University

with:
Chris Rogers, Tufts University
Merredith Portsmore, Tufts University

contact:
e_milto@yahoo.com

Gender Differences in an Introductory Engineering Robotic Learning Experience

Classroom environment influences each student's educational experience. The aim of this classroom evaluation was to gain a better understanding of how each gender functions in an introductory robotics class, where LEGOs and ROBOLAB were used as a tool to teach engineering principles and basic robotics concepts. A better understanding of how each gender performs in reaction to the classroom setup will hopefully lead to the development of a learning environment that is mutually beneficial to each gender. The course, a general freshman introduction, targeted for this evaluation required students to complete robotic challenges while working within groups and participating in design competitions. The present evaluation explored gender differences in self-confidence levels related to robotic tasks, feelings toward competitions as a component of the course, and differences in the way males and females interact within groups. Assessment was conducted through interviews, observations, and written questionnaires. Competency in robotics activities was found to be similar although males were found to be more confident of their own abilities. Both genders felt the competitions were enjoyable and integral to the atmosphere of the class. Males in the class took the competitions more seriously than did the females. Building and programming robots were thought to be their greatest areas of learning by the women. Males, on the other hand, cited working in groups and learning to compromise as the areas where they made the greatest strides.