

Use of Gaming to Promote Student Learning in Greenhouse Operation and Management

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Employers want experienced graduates that are creative thinkers and confident decision makers. Students can hone these skills in the classroom through problem-based learning activities. Gaming activities can be used to present students scenarios in which problems are encountered and solutions created and applied. The objective of this research was to determine if a gaming activity could be used to improve creative thinking as well as written communication, problem solving and decision making skills. Students in *Greenhouse Operation and Management* (AGSCI 3360) participated in an activity which they were instructed to construct a greenhouse facility that could be used to grow a variety of floriculture crops. Designs were created in phases in which students selected greenhouse structures and benching, environmental control systems, and irrigation and fertilizer delivery systems. After the design phase, students participated in an activity in which they put their designs into practice. During fifteen years of business simulation, students were confronted with various IPM and business management issues requiring investigation and employment of diagnostic, creative thinking and problem solving strategies plus application of designed solutions. At the end of the exercise students were surveyed for their opinion as to the effectiveness of the gaming activity. While students expressed concern in the amount of time required for the activity and completing their journals, a majority of students indicated that the activity effectively introduced them to the aspects of operating a business and the use of investigative and problem solving techniques helped them to retain knowledge of management issues faced in the greenhouse industry.