

Greening university classrooms

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In today's frenetic world, many urban dwellers spend more than 80% of the day indoors. Bringing nature in to living spaces by enhancing homes and offices with ornamental plants has become another popular facet of the move to "green" our lives. In addition to their aesthetic beauty, indoor plants have been shown to offer psychological and restorative values, such as reduced tension, better coping mechanisms, and increased concentration and attention.

Researchers have found that the presence of houseplants in homes and workplaces can reduce eye irritation and stress, motivate employees, improve concentration, and even reduce air impurities. [Plants](#) appeared to have a positive effect on headaches and fatigue and hoarseness, and employees even reported having less dry skin when plants were introduced to offices. Interior plants have also been shown to increase work productivity; in one study, employees' reaction time on computer tasks improved by 12% when plants were present.

Now, scientists are testing the impact of plants on student performance and satisfaction in the classroom. Jennifer S. Doxey and Tina Marie Waliczek from the Department of Agriculture, Texas State University, and Jayne M. Zajicek of the Department of [Horticultural Sciences](#), Texas A&M University, published a study of the impact of plants in university classrooms in a recent issue of *HortScience*. Their main objective was to investigate the impact of plants in classrooms on course performance and student perceptions of the course and instructor.

The study was designed to include a minimum of two classes of the same

coursework taught by the same professor in the same room during one semester. Three sets of two classes each and 385 students were included within the study. Throughout the semester, an experimental group of students attended classes in rooms that contained an assortment of tropical plants. The control group of students attended class in rooms with no plants.

At the end of the semester, the students were asked to complete the university's course and instructor evaluation survey, and each student provided demographic data, including class rank, gender, and ethnicity. To measure course performance, the professor for each course reported each student's grade for the course.

Although the researchers found no significant differences in students' grades and academic performance, differences were identified in students' overall course and instructor evaluation scores. Of particular interest, statistically significant differences were found between control and treatment groups when students scored questions related to "learning", "instructors' enthusiasm", and "instructors' organization". Students from the group whose classrooms included plants rated these items higher on the satisfaction scale. In comparisons of the two student groups, the most apparent differences were reported by students who attended class in the room that was windowless and stark.

According to Waliczek, "Our results showed that interior plants appeared to have the greatest impact on students who were in the classroom that had no other natural elements. Results also showed that interior plants can be a suitable alternative in some cases to architectural elements such as windows. Our study supports other research showing that plants have value beyond aesthetics in interior environments, including promoting positive feelings in university students."

More information: The complete study and abstract are available on the

ASHS Hortscience electronic journal web site:

[hortsci.ashspublications.org/c ... nt/abstract/44/2/384](https://hortsci.ashspublications.org/content/abstract/44/2/384)

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