Cole Etheredge

THE EFFECTS OF LIVE PLANTS AND WINDOWS ON PEOPLES’ USE OF INTERIOR SPACES AND THEIR PERCEIVED QUALITY OF LIFE AND ANXIETY LEVELS

1. The subjects of the study will be drawn from students, faculty, and staff that are using designated study areas on the second, fourth, sixth, and seventh floor of the Alkek library, as well as on the first and fourth floor of the McCoy Business building. A total of 385 people will be asked to participate in the study. No discrimination will be given to age, sex, ethnicity, or sexual orientation. Those people chosen for the study will be those that are in the before mentioned study areas at the time questionnaires are being handed out.
2. The subjects will be approached by the graduate student that is conducting the study, Cole Etheredge, and a brief explanation that a study is being conducted will be given. If the subjects are willing to take the questionnaire then they will be given one with two consent forms attached to the front of it. They will be asked to read and then sign the second consent form and to take the top consent form for their personal records. Participants will be selected based on convenience and willingness to participate.
3. At the beginning of the study, an observation will be taken of all study areas and the researcher will tally where students are sitting in each of the study areas and the type of activities in which they are participating. Once the initial tally is complete, plants will be introduced into half of the research test sites. Observations will occur every week during high traffic times based on Texas State University catalog course scheduling. The plants will be placed in the areas, and a week later an observation will be made. Two weeks after plants are introduced, another observation will be made and the plants will be rotated into a different study site location. With this rotation schedule, the plants will not be placed in the same location twice during the eleven-week study.

The tally sheet was modeled on a technique used in another study and had a reliability of 0.85 (Cooper-Marcus, C.  2007). The activities are broken into four separate sections so as to make it easier for the observer to take account of what activities individual people are participating in while in the test sites. The four main sections include physical activities, social activities, communication activities, and engagement activities. Under each of these main sections, there are lists of activities in which a person could be engaged. These activities are number coded so that they can easily be placed in the tally sheet. In addition to the activities listed on the tally sheet, there are also areas for the date, site location, and the time in which participants arrive and leave the sites during the observation period.

A number of respondents equal to ten percent of the number of possible seats at each site will be asked to respond to a short questionnaire that measures respondents’ perceptions of quality of life, anxiety levels and asks for demographic information.

The quality of life survey consists of two questions dealing with how the person feels at that moment and how they would rank their overall quality of life. The survey was modified from a survey used in a campus green spaces study, and had a reliability of 0.91(McFarland et al., 2008). The participant is given the choice between five different answers on a Likert-scale from which they choose after reading the statements. Questions include, “when all things in your life are considered, how do you feel today?” and, “overall how would you rank your quality of life?”

The anxiety questionnaire consists of ten questions. These questions deal with how comfortable or nervous the person is feeling at the moment. The answers are arranged on a Likert-scale with “1” referring to the answer “not at all” and “4” being “very much so”. The anxiety/stress questionnaire is a modified version of the perceived stress scale (Cohen et al., 1983). Examples of these questions include, “I am upset about something that has occurred unexpectedly.” and “I feel that I am unable to control important things in my life.”

There will also be two open ended questions one asking why the students chose to sit and the area that they are in and two what the student is currently working on in that area.

The demographic questionnaire consists of five questions, three of which are closed-ended and one of which is open-ended. Students, faculty, and staff will be asked to provide the following information: classification/grade, age, ethnicity, gender and a brief explanation of what they are working on at the moment.

Data will be entered and scored into Microsoft Excel and then analyzed using Statistical Package for the Social Sciences (SPSS). The sample will then be compared using analysis of variance tests to see if they differed in the number of people participating in activities in each space, the type of activities in which people are engaged and the amount of time people spent in each space, their perceptions of quality of life and/or in their stress/anxiety levels. Demographic comparisons will also be made.

1. There are no potential risks to any of the subjects participating in the study.
2. At no time does the questionnaire request information on the subjects’ identity. The consent form asks respondents to sign their name and give their email address so that they can be reached if they win the drawing. These questionnaires and consent forms will be kept in a secure location in the agriculture building. The only people that will have access to the raw data from the study will be the graduate student, Cole Etheredge, and the committee members. At no time will any personal information of any subject be released to the public.
3. Results will add to the literature on benefits of plants to people.
4. A $25 gift card will be offered as an incentive to respondents. There will be a random drawing at the end of each week in which one person will be chosen to receive the gift card. The winning person will then be contacted by email and informed that they have won.
5. As there are no perceived risks to any subject or society the benefits of research results adding to literature outweigh the risks.
6. The sites that will be used are located on the second, fourth, sixth, and seventh floor of the Alkek library, as well as on the first and fourth floor of the McCoy Business building. These sites were chosen based on if they had windows, the fact that any study items would have to be brought by the subjects themselves, as well as they are busy study areas. Approval for the use of the library by staff and the dean of the business college has been obtained.
7. I am a graduate student working on my master’s in Agriculture Education. I hold a bachelor of science in horticulture and am interested in the ties between humans and plants and the benefits that may occur between these relationships. My supervisor is Dr. Tina Cade, [tc10@txstate.edu](mailto:tc10@txstate.edu)
8. Copies of signed proposal sheets.
9. N/A
10. The people that will have access to the results will be the Graduate Student, Cole Etheredge ce1063@txstate.edu , Dr. Tina Cade [Tc10@txstate.edu](mailto:Tc10@txstate.edu), Dr. Stan Friedman [sf08@txstate.edu](mailto:sf08@txstate.edu), and Dr. Priscilla Crawford [ph12@txstate.edu](mailto:ph12@txstate.edu). The paper will be published in HortScience and HortTechnology journals.