



The Effects of Proximity on Recycling Behavior

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Abstract

The present research addressed environmental psychology and specifically focused on recycling and conservation. The design utilized an experimental method along with direct observation in an attempt to increase recycling in a college classroom. The experiment took place as part of a seminar series where refreshments were always provided. Results indicated the most effective placement of the recycle bin was adjacent to the regular trash can. When the recycle bin was placed outside the classroom, 8% of cans and 4% of bottles were recycled. When the recycle bin was placed adjacent to the trash can, 55% of cans and 38% of bottles were recycled.



Objective

•to determine whether the proximity and placement of a recycle bin affected recycling behavior

Background

- Recycling programs need to be implemented and regulated at local colleges and universities.
- Participants from a university were surveyed and reported that they acknowledged the recycling program and its gaps on their campus (Kaplowitz et al., 2009).
- Recycle bin placement, signage, and appearance is important to influence recycling behavior.
- Students and staff of a university were surveyed and reported support for change to their recycling program, such as modifications to the appearance of the recycling bins. (Kelly et al., 2006).
- Americans are aware of environmental problems and are taking some action.
 - “67% of north American agree that environmental conditions are worsening” (Saad, 2007).
 - “83% people have made some change in an effort to protect the environment”(Jones, 2008).
- A cleaner and more eco-friendly environment can only be achieved with proactive behavior
 - According Koger and Winter(2010), “environmental problems” are really behavior problems.



Methods and Procedure

•In each condition beverages were supplied and a record of how many attendees was noted along with the numbers of canned and bottled beverages offered at the beginning of every treatment condition.

Treatments:

- Control Condition: No recycle bin
- Condition#1: Recycle bin outside classroom
- Condition#2: Recycle bin next to trash can inside classroom

Participants

- Participants included attendees and students enrolled in a psychology seminar course.
- The demographics from the university where the seminar was held consist of a total enrollment of 1,266 students. Of that, 975 students are traditional and 190 students are non-traditional. According to statistics for the spring 2014 semester, 68.7% of enrolled students disclosed as Caucasian, 16.7% as African American, 5% Hispanic, < 1% Asian and Native American, and 7.9% Unknown. The ratio between genders at Reinhardt University is about equal with 52% male students and 48% female students.
- In this study group size was recorded and participants were not identified.

Results

No recycle bin

- 16 Attendees
- Beverages offered: 16 Cans, 24 Bottles
- Beverages taken: 8 Cans, 12 Bottles
 - Trashed: 4 Cans, 5 Bottles (45%)
 - Recycled: None (0%)

Recycle bin outside :

- 15 attendees
- Beverages offered: 26 Cans, 24 Bottles
- Beverages taken: 5 Cans, 14 Bottles
 - Trashed: 4 Cans, 5 Bottles (47%)
 - Recycled: 0 Cans, 1 Bottles (5%)

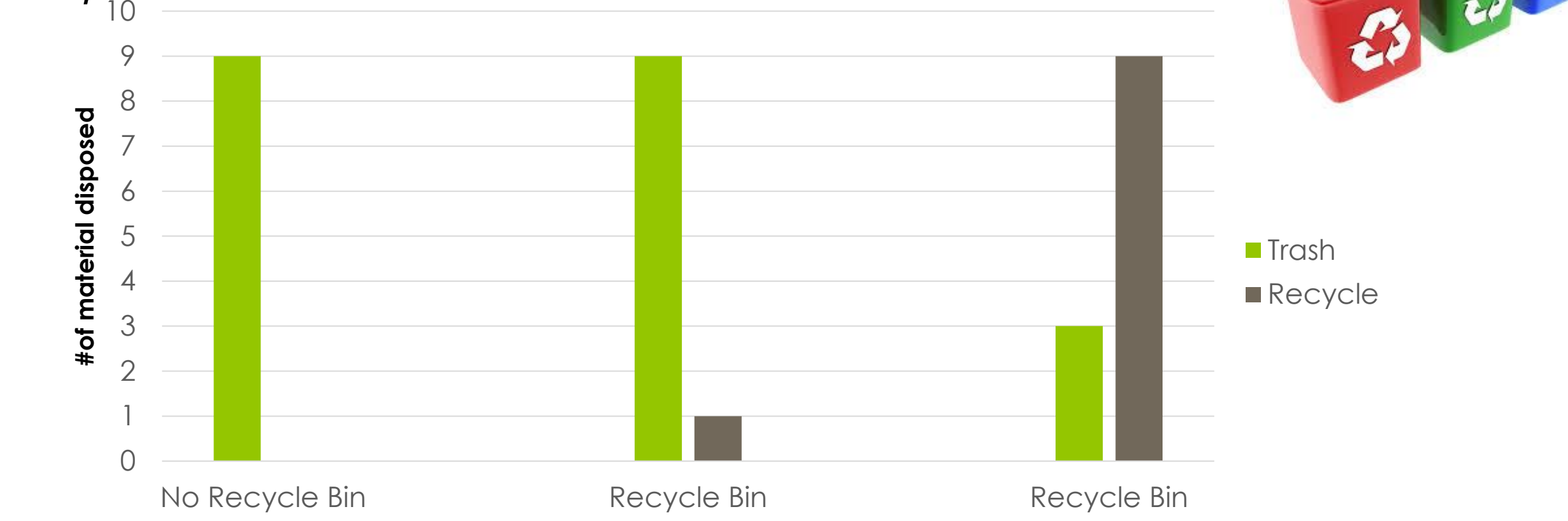
Recycle bin outside retest:

- 12 attendees
- Beverages offered: 9 Cans, 11 Bottles
- Beverages taken: 8 Cans, 9 Bottles
 - Trashed: 6 Cans, 4 Bottles (59%)
 - Recycled: 1 Cans, 0 Bottles (6%)

Recycle bin inside:

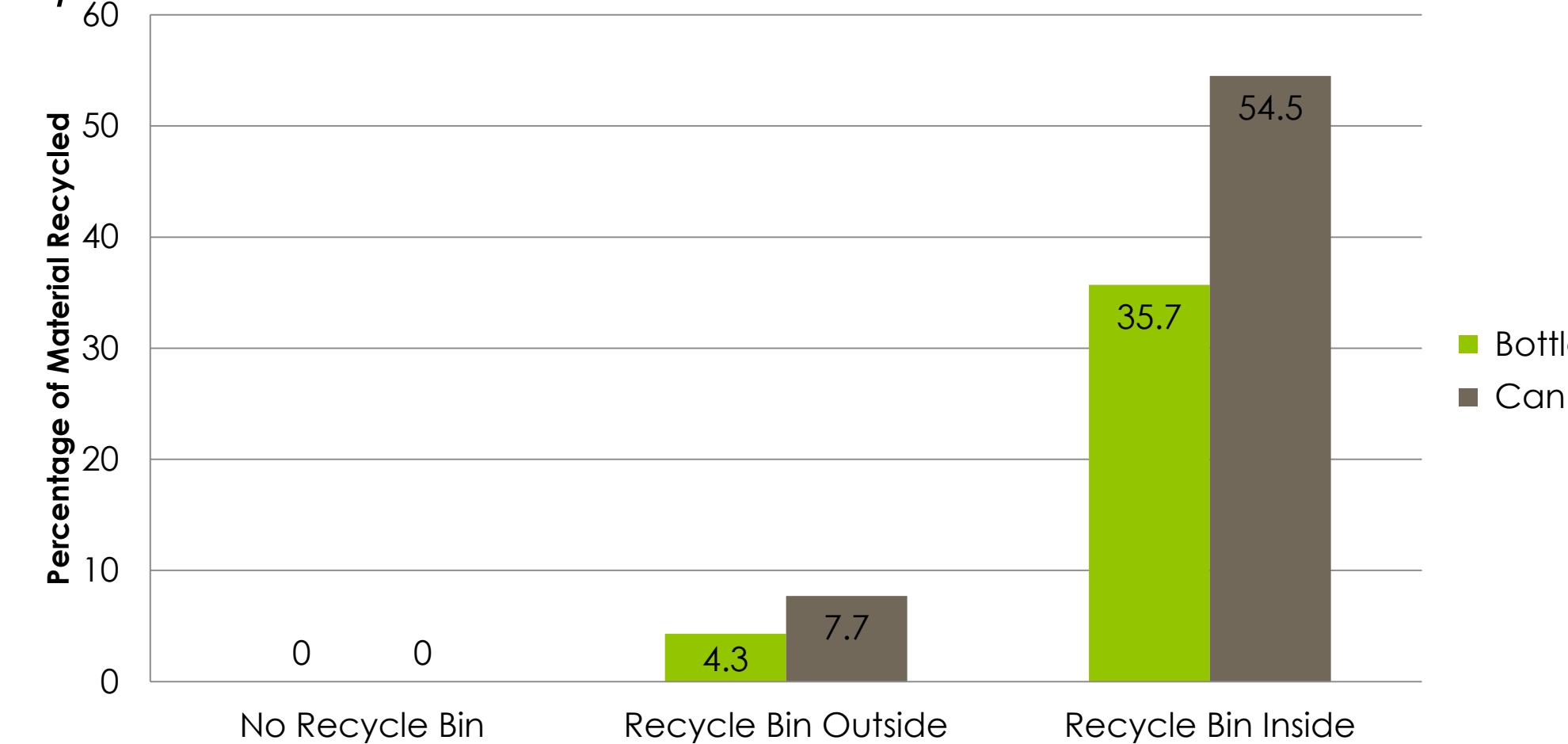
- 12 Attendees
- Beverages offered: 20 Cans, 10 Bottles
- Beverages taken: 11 Cans, 8 Bottles
 - Trashed: 2 Cans, 1 Bottles (15%)
 - Recycled: 6 Cans, 3 Bottles (47%)

Figure 1
Total number of items disposed across experimental test conditions



Note. The total number of cans and bottles were combined for this figure.

Figure 2
Percentage of bottles and cans recycled across experimental test conditions



Community Implications

- Local colleges and universities should consider adding recycling programs in order to instill necessary and important recycling behaviors that can in turn be taken into the greater public.
- Recycling is an important aspect of conserving our environment and planet. An increase in awareness and the alteration of waste management behaviors would be beneficial in the long run and would greatly influence conservation efforts.



Future Research

- Future research should examine and compare attitudes and actions of recycling. Both of the following topics will ultimately determine the future of our environment.

Summary of Findings

- Recycling behavior drastically changed when the recycle bin was moved inside the classroom (Figure 1).
- Aluminum cans were recycled more in both experimental conditions. The behavior of recycling bottles increased 31.4% and recycling of cans increased 46.8% between conditions (Figure 2)
- Trash accumulated more often when the recycle bin was placed outside of the classroom. In this condition 42% of material was unaccounted for because it was neither recycled or thrown away (Figure 3).
- Recycling of materials was more prevalent when the recycle bin was placed inside the classroom next to the trash. However, 37% of material was neither recycled or thrown away in this condition (Figure 4).
- The condition with the recycle bin inside and adjacent to the trash can increased recycling behavior by 41% to 47% from the condition outside of the classroom at 6%. The data also show a decrease in throwing away material by 38% to 15% from the condition outside of the classroom at 53%.
- Overall this research found that factors of location and convenience impact the behavior of recycling.

Figure 3
Percentages of disposal behavior when recycle bin was placed outside the classroom

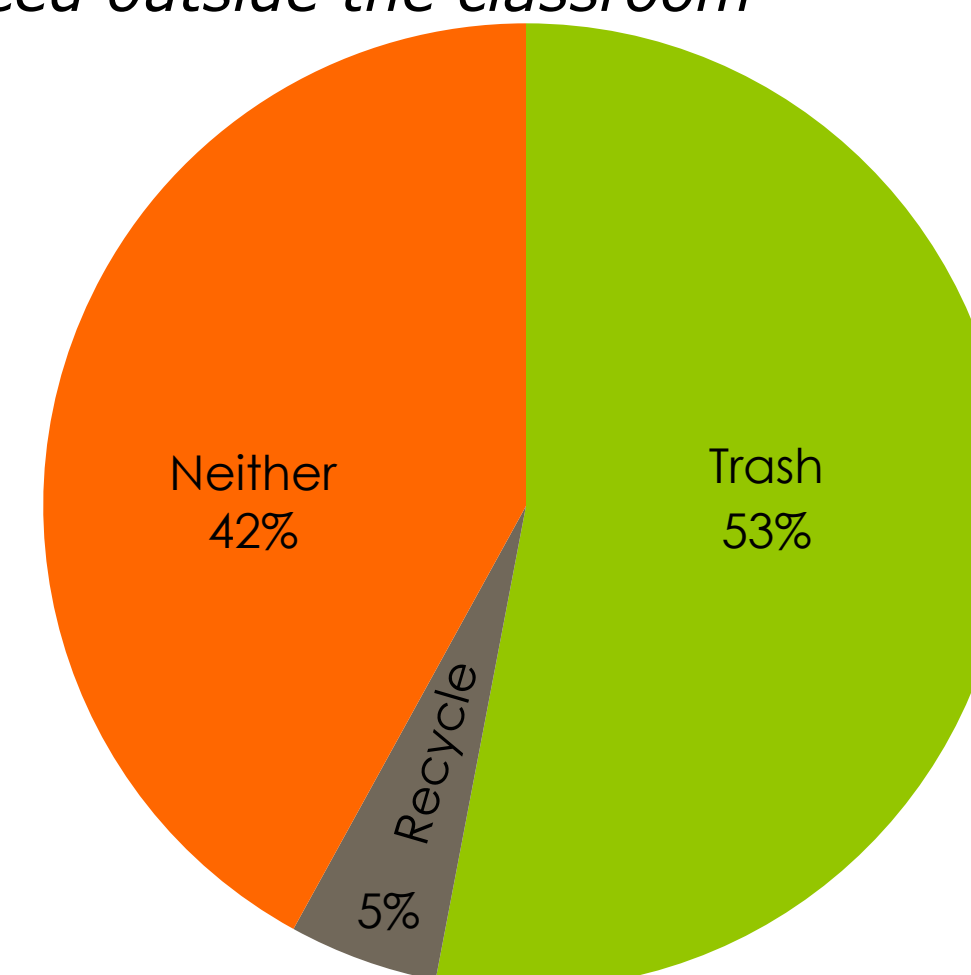
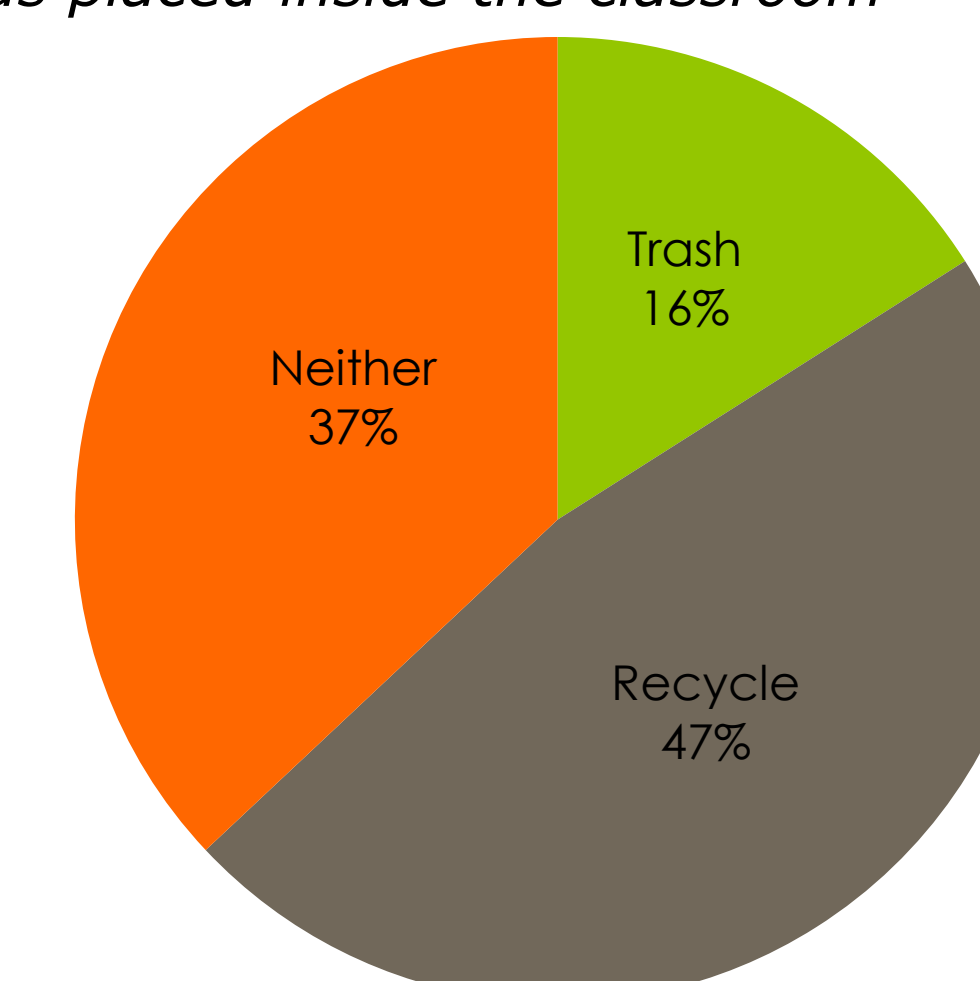


Figure 4
Percentages of disposal behavior when recycle bin was placed inside the classroom



Note. The total number of cans and bottles were combined for these figures.

BOTTLES & CANS ONLY



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