

CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s)

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Project Number

J0416

Project Title

It's Not Easy Being Green! An Experiment on the Convenience of Recycling at a Green School

Abstract

Objectives/Goals

The purpose of my project is to determine if the convenience of recycling effects the degree to which students recycle, even at a Green School where students have previously received education about recycling and the behavior is reinforced.

Methods/Materials

The recycling behavior of 5th-8th graders at a private school, which is designated by the County as a 'Green School', was observed on 3 days over a 4-week period. In Week 1, baseline data was collected. In Week 2, half of the usual recycling bins were removed and the number of beverage containers ending up in the trash and recycling bins were recorded. In Week 3, all of the recycling bins were removed, leaving only the usual, large recycling cans in place, and data was recorded.

Results

At baseline, 88% of the beverage containers ended up in the recycling and 12% ended up in the garbage. When half of the recycling bins were removed, 29% of the containers ended up in recycling, compared to 71% which ended up in garbage. When all recycling bins were removed, only 9% of the containers ended up being recycled and the remaining 91% ended up in the trash. One of the most startling findings was that the majority of students were unwilling to walk an additional 5 steps to the large recycling cans after dropping off their lunch trays, and instead, threw their recyclables in the garbage.

Conclusions/Discussion

Overall, my hypothesis was supported and the experiment demonstrated that students only recycle when it is convenient, even at a Green School. With this information, our educational efforts need to be more focused on increasing intrinsic motivation for helping the environment, not just reinforcing behavior. There is also a great opportunity to help students be aware that most of the time when we 'do the right thing', it takes effort and helping the environment is no different...it is worth taking the extra 5 steps!

Summary Statement

The project examines whether students' recycling behavior is influenced by how convenient recycling is made for them, even at a Green School where recycling behavior is reinforced.

Help Received

Mother and friend helped collect garbage/recycling; Mother helped edit report; Principal and teachers were supportive.