



The Power of Influence: Promoting Recycling in High School Cafeterias



Do AP English high school students recycle more when given access to visible infrastructure, authority support, and peer influence?

Introduction

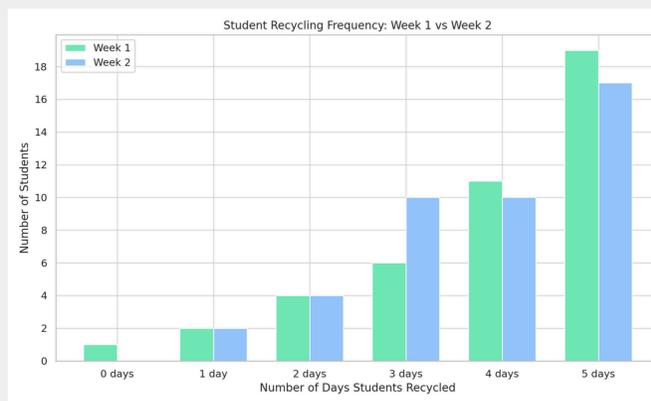
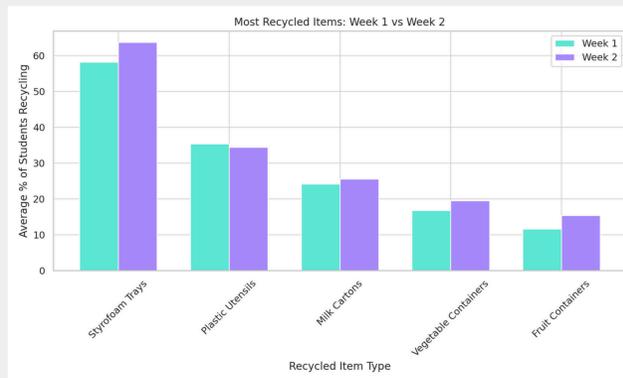
In many schools, cafeteria waste accounts for nearly 60% of total daily waste, yet most of it could be recycled (Wilkie et al., 2015). Despite environmental education in early schooling, recycling infrastructure and behavior among high school students remains underdeveloped. Previous studies emphasize the value of authority figures, peer norms, and structured educational interventions in promoting sustainable behavior (Prestin & Pearce, 2010; De Leeuw & Valois, 2014). This study investigates the effects of creating and promoting a cafeteria recycling program at X High School, targeting AP English 3 and 4 students who purchase school lunch. It assesses if such a program, involving a visible recycling bin, announcements from authority figures, and peer motivation, can shift recycling habits and attitudes during a two-week intervention.

Methodology

To evaluate the correlation between environmental structure and student behavior, this mixed-method study used a pre/post survey model with embedded observations. Before intervention, a cafeteria waste audit identified commonly recyclable items. Then, a central recycling bin was installed, labeled with signage. For Week 1, daily announcements reminded students to recycle; in Week 2, announcements were removed. Surveys were administered before, during, and after the intervention to measure recycling knowledge, confidence, and behavior. Students submitted photos as self-report evidence. Participants earned English Honor Society credit or class extra credit as incentive. Observations during lunch tracked bin usage and material type. Data was analyzed to examine confidence, frequency, and barriers.

Findings

During the 10-day intervention, students showed a noticeable improvement in both recycling frequency and confidence. During the 10-day intervention, students showed clear improvement in both recycling frequency and confidence. In Week 1, 44.2% recycled every day, and 25.6% did so four days. Even without announcements in Week 2, 46.6% still recycled at least three times, suggesting internalized habits. Confidence in identifying recyclables rose from 24% to 70%, and 84% of students felt more knowledgeable post-study. Additionally, 76% said they were likely to continue recycling afterward.



Additionally, 74% of students reported increased recycling outside the cafeteria, showing a ripple effect. A strong correlation ($r = 0.92$) linked confidence with recycling frequency, highlighting the role of knowledge and self-efficacy. Students cited peer influence and prompts like posters and announcements as motivators, though some still faced issues with bin access or forgetfulness. Styrofoam trays, milk cartons, and plastic utensils were the most commonly recycled items.

Conclusion

This study affirms that structured environmental interventions—visible bins, authority encouragement, and peer influence—effectively foster recycling among high school students. Even when external reminders ceased, students maintained habits, suggesting a shift toward internal motivation. These findings mirror behavioral reinforcement models and validate earlier studies on authority and social norm influence. Most students felt more confident and aware of how and why to recycle, and many extended their habits to other areas. However, sustainability of behavior long-term remains uncertain without consistent support. “Seeing others recycle made me do it too.” “The posters helped me realize I was throwing away stuff I could recycle.”

Future Research

While this study showed that structured interventions can positively influence high school students’ recycling behaviors, further research is needed to understand the long-term sustainability of those habits. Because the study only lasted two weeks and participants were limited to AP English students who were incentivized with extra credit or club points, future studies should explore how recycling behaviors differ across larger and more diverse student populations. A longer study timeline would help assess whether habits persist without incentives or reminders. Additionally, it would be valuable to compare authority-led campaigns (such as teacher announcements) with student-led efforts to see which fosters more intrinsic motivation. Implementing multiple recycling bins across different cafeteria zones could also improve accessibility and encourage participation from students seated farther away. Finally, future interventions should consider the role of environmental anxiety—some students felt that their individual efforts were too small to matter. By addressing these feelings and reinforcing a sense of agency, schools can create a more empowering culture of sustainability.