



## Capital University RecycleMania 2020 Case Study

1. Contact info (name, department, school, email, phone)

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2. Focus of Case study - This project raised awareness on environmental sustainability and reduced waste from single-use disposable coffee cups through an incentivized reusable coffee cup sale at Capital University.

3. Detailed description of campaign component:

The Environmental Sustainability course (ENVS-293-01) taught by C. Anderson at Capital University aims to educate students on the United Nations 2030 Sustainable Development Agenda by having them select a particular environmental issue, research information relevant to understanding that issue, and develop and implement a sustainable development plan to address that issue locally. This student-driven plan targeted Sustainable Development Goal #12 'Responsible Consumption and Production' by reducing waste generation, encouraging the University to adopt sustainable practices, and increasing awareness. The project was designed during Fall 2019 and implemented during Spring 2020 by undergraduate students M. Richmond and M. Frey to raise campus awareness on environmental sustainability and reduce waste from single-use disposable coffee cups through an incentivized reusable coffee cup sale and survey at Capital University.

During Fall 2019, the pair of students completed background research, met with the manager of the Capital Grounds Coffee Shop on campus, designed the logo for the stickers for the cups, and purchased the cups and stickers using an environmental budget through the Provost Office. Background research showed that in the United States approximately 50 billion coffee cups are thrown away each year. The manager agreed to the incentive program for students, faculty and staff who purchased a reusable cup. Then, 50 blank double-walled coffee cups and 50 waterproof stickers with a newly designed logo were

purchased online for a cost of \$224.66. During Spring 2020, a four-hour event was advertised, cups were sold for \$5, and email addresses and names were collected. After receiving IRB approval for administering the survey, respondents were asked five short questions about their current attitudes on environmental sustainability, how they heard about the event, how often they thought they would reuse the cup, and why they were interested in the reusable cups.

#### 4. Planning steps & timeline to implement:

Spring 2020:

- **Weeks 1-2:** Completed additional background reading on sustainability and campus waste reduction; revisited sustainability plan details from previous semester
- **Week 3:** Met with Manager of CapGrounds L. Hernandez to confirm the details of the incentive program and her willingness to have the event inside of the coffee shop; Manager gave each student, faculty, or staff member that purchased a reusable cup their first cup of coffee for free and agreed to a 10% savings on future purchases when the cup was brought back for reuse
- **Week 4:** Email correspondence with Manager of coffee shop to decide on a date and time to hold the event; gave an update in class about the plan
- **Week 5:** Preparation for the event was completed which included placing the stickers on the cups, printing posters, hanging posters around campus to advertise, and asking professors to inform their students of the event; the cups and stickers were purchased at a total cost of \$224.66 using an environmental budget through the Provost Office at Capital University originally created using incentives from a previous campus energy improvement program
- **Week 6:** Held the four-hour cup sale event at Cap Grounds, collected payment through Venmo (after guidance from the Office of Student Affairs) and accepted cash; collected names and emails to send a survey
- **Week 7:** Started work on rough draft of sustainability plan for class; composed a survey to send to students who purchased a cup; requested and received permission to administer the survey from the Chair of the Institutional Review Board (IRB) at Capital University
- **Week 8:** (Spring Break)
- **Week 9:** Sent survey via email to everyone who purchased a cup; originally planned to send a pre-survey and a post-survey but needed to adjust that plan based on the closing of campus due to COVID-19
- **Week 10:** Collected survey responses and sent email reminder for survey
- **Week 11:** Analyzed survey data
- **Weeks 12-14:** Wrote final sustainability plan
- **Week 15:** Recorded final video abstract of plan

#### 5. Resources and stakeholders involved

- This project could not have been implemented without the support of the Manager of CapGrounds who provided the discounts and helped set up the event in the coffee shop
- This project included coordination with Senior Associate Provost T. Lahm in the Provost Office to purchase the cups and stickers using an environmental budget originally created using incentives from a previous campus energy improvement program. The 50 cups and stickers were purchased

for \$224.66 at a cost of approximately \$4.50 each. Then, cups were sold for \$5 which helped create a surplus of ~\$25 for the fund to be used for other sustainable projects in the future.

- The professors in the Department of Biological and Environmental Science advertised the event, and helped print out the flyers
- The Office of Student Affairs provided guidance on accepting payment through Venmo
- The Chair of the Institutional Review Board (IRB) at Capital University reviewed the Request for Exemption and provided permission for the survey to be administered through Google Forms
- Students, faculty, and staff bought 50 cups during the four-hour event in the coffee shop
- M. Richmond and M. Frey, the students in charge of this project through their Environmental Sustainability seminar course, volunteered their time to design and implement the plan, and volunteered their time to sell the cups during the event
- This project was supported by the instructor for the Environmental Sustainability seminar course, Dr. C. Anderson

6. Describe the Results of this campaign component

a. General results - All 50 cups were sold during the four-hour sale event for a total sale of \$250 (for a \$25 surplus) that was donated back to the environmental fund through the Provost Office.

Four-six people, mostly students, purchased the cups. Then, 36 survey responses were received for a total response rate of 76%.

b. Specific measurable impact figures, if applicable (*Ex: Reduced contamination rate 13%, Gathered 316 pledges to recycle more, etc., 250 people engaged, etc.*) - The pre-survey was sent to 46 separate emails and 36 responses were recorded for a response rate of 78%! The first question of the survey asked students to rate their current attitude towards implementing sustainable practices in their life on a scale of 1-5 (1 = I don't care to use sustainable measures, 2 = I hardly ever use sustainable measures, 3 = I sometimes use sustainable measures, 4 = I very frequently use sustainable measures, 5 = I practice sustainability every chance that I get). The average response was 3.8, meaning that most of the respondents either used sustainable practices sometimes or frequently. The second question on the survey asked students how they heard about the event. The most popular responses were seeing a poster hung up on campus (19 students) and hearing about it from a friend (16 students). Other responses included being informed by a professor (5 students) and didn't hear about it - just happened to come into Cap Grounds that day (5 students). The third question on the survey asked respondents how often they felt they would use their reusable cup at Cap Grounds. Six people replied that they would use their cup fewer than once a week, 12 people said they would use the cup once a week, 14 people said 2-3 times a week, 3 said 4-5 times a week, and 1 said they would use the cup every single day. This shows that most people intended to use their reusable, non-disposable cup 1-3 times a week, which would be a big step towards living a life of environmental sustainability for many students. The fourth and fifth questions on the survey addressed the reasoning behind why each consumer purchased a reusable cup. Respondents were allowed to select more than one answer. 28 people said they purchased a cup to be eco-friendly. Twenty-two people said they purchased a cup for the 10% discount each time they

used it. 19 people said they bought a cup to support a friend or classmate. Finally, 9 people said they bought a cup due to the free cup of coffee with a purchase. More importantly, however, is that 32 of the 36 people responded in question five to say that making an effort to be environmentally friendly and sustainable was more important than saving money when they made the decision to purchase.

7. What would you do differently in the future?

Next time, we plan to estimate the reduction in waste of single-use disposable coffee cups through this program. Unfortunately, we were not able to send a second follow-up survey to specifically ask how many times each person used their reusable coffee cup in the Capital Grounds coffee shop with the closing of campus due to COVID-19. We would also like to pursue a follow-up project with Capital Grounds to create a program for students who stay in the coffee shop to drink their coffee to allow them to use a ceramic mug instead of a single-use disposable cup to further reduce waste in the coffee shop.

8. What advice would you give to another college that wanted to do a similar effort?

The event received a lot of positive feedback and interest from students, and our advice would be to perform this event either every semester or at least once a year. Hosting the event every fall semester would allow for the incoming first year students to be able to buy one and use throughout the year. We also recommend approaching the Provost Office or similar office on campus to ask about supporting student initiatives related to environmental sustainability. If there isn't a budget that can be used to offset the purchase of the cups, then start small like we did with just 50 cups and charge enough to make back at least some of the purchase cost. In addition, don't be afraid to approach staff and managers in different offices directly, like Dining Services, Housekeeping, Facilities, or others about starting new programs or initiatives on campus. By continuing this event in the future, the amount of disposable products that end up in the oceans will be reduced, which will decrease the negative effect on aquatic life. In addition, this project encourages companies on campus to adopt sustainable practices and increases education and awareness related to environmental issues. These worldwide issues may seem too large to tackle by two students at a small liberal arts school in Ohio, but it showed that we can make a difference locally on our campus.

9. Photos and Graphics



Figure 1. Flyer used to advertise the sale of the \$5 reusable coffee cups in Capital University's Capital Grounds coffee shop including the incentive program for free cup of coffee with purchase of the cup and 10% off purchase every time the cup is brought back. Photo credit: Maddie Richmond.



Figure 2. Picture of students in charge of the plan M. Richmond (left) and M. Frey (right) during the sale of the reusable cups in the Capital University Capital Grounds coffee shop in February 2020. The sign-up sheet to collect names and email addresses for the survey is shown on the front middle of the table. Photo credit: Christine Anderson.