

Promotional Water Bottle

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A. Background

In the October 3rd 2017 Sustainability Committee update University of Central Florida becoming zero waste was listed as one of their goals. One of the main aspects of becoming a zero waste campus is phasing out the usage of single use plastics. A cold turkey approach to eliminating plastics in the current dining locations would currently be not well received by the student body. A universal reusable water bottle, specific to University of Central Florida, that rewards students who use reusable water bottle instead of single use drinking cup could help usher in this change. This system will also allow student to take advantage of some of the discounts on beverages when using a reusable bottle already put in place by Aramark along with creating new discounts at other locations on campus. Launching the promotional bottle program would also consist of educational posters which not only inform student about the discounts around campus but also other ways they can mitigate their carbon footprint. Setting up discounts for students when they use a proprietary bottle will be a liason to students developing a zero waste lifestyle before more drastic measures like banning single use plastics take place at University of Central Florida.

B. Objectives

One objective is to set up as a system to increase student sustainability engagement on campus. Informative posters and plastic audit volunteer event will influence students to practice more sustainable behaviors. The posters which could double as ads for our sponsors and the proprietary bottle, would provide student with information on how to properly recycle on campus, how continual use of single use plastics adds up, and also tips on easy ways to change their own behavior to be more sustainable. The discounts offered at locations on campus for using the proprietary bottle would help get students motivate students to cut back on single use plastics. A public plastic audit event, ideally taking place in the John T Washington center, would not only allow student to volunteers to help the office of sustainability gather useful data but even students who did not volunteer would have to witness the waste being sorted and become more consciousness of their own production.

The other objective would be to create a plan for University of Central Florida to take strides toward their zero waste goal. The plastic audit event would give a more specific baseline about the recycling contamination rate and what kind of waste has the greatest contribution. After this data is gathered it will be feasible for the office of sustainability to create program specifically tailored for the largest waste contributors. Without the data currently it is the assumption that single use plastics play a large role in the total waste. A proprietary bottle would help wean students off single use plastic before making definitive bans in the future. A timeline for the zero waste goal needs to be established and some of the key things that will need to occur along the way is the banning of single use plastics, large scale composting, and possibly a trash sorting program if recycling rate remains stagnant.

C. Research Questions

What is the current landfill diversion rate?

What is the current contamination rate of recyclables in high traffic areas?

What is the amount estimated per year of single use plastics disposed of versus recycled?

How often do students eat on campus?

How often do students get drinks when they eat on campus?

Do students know what items are able to be recycled on campus?

How important is sustainability to students?

How likely are students to buy a bottle for promotions?

How much would an effective zero waste campaign cost?

What discounts can be offered for using reusable cups on campus?

What would be a realistic timeline to achieve a zero waste campus?

D. Significance

According to the University of Central Florida's March 2017 STARS report there has been no reduction on total waste generated per campus user since 2015. One of the university's goals outlined in their March 2017 executive STARS letter is increasing landfill diversion to 75%. The easiest way to divert waste from the landfill is to no longer be producing that waste at all. By conducting a detailed waste audit and then extrapolating that data we can find out how much of University of Central Florida's total waste consists of single use plastics.

The most common practice by student according to the survey result for campus engagement listed in the stars report was recycling and conserving energy. Despite students

reporting recycling was their most common practice the recycling rate goal of 75% by 2020 does not currently look attainable. The detailed plastic audit will include how many single use plastics are being thrown away as opposed to recycled. If there are less single use plastics being disposed of combined with education about how to recycle single use plastics I believe the rate would go up slightly but overall we would see the quantifiable results in the reduction in total waste generated per campus user.

Promotional bottles will impact the student body culture as it is combined with education about the detriment of single use plastic. Other Universities such as Rider have seen the popularity of programs that reward students for using their own bottles create a stigma about using single use plastics. Aramark has goals to significantly cut single use plastics by 2022 and University of Central Florida aims for zero waste at an unknown time but neither of these organizations have taken aggressive action to involve their customer, the student body.

E. Methodology

Our methodology would consist of a research phase, distribution phase, and assessment phase. During the research phase we would like to contact other schools who have Aramark as their main dining services provider and also have promotions for students who use their own reusable bottles. Observing the schools success based on implementation and on their failure will allow us to tailor a program specifically for University of Central Florida. Establishing an understanding of the student bodies knowledge of sustainable practices along with those who would most be impacted by proprietary bottles will also be essential to making the program a success. A baseline for the current waste produced by single use plastic disposal with a waste

audit will allow for quantifiable result to be measured in the assessment phase. Meeting with dining services and discussing current promotions that are offered through using a reusable cup and how they can be expanded on will be a significant determiner of the success of the project. Educational posters, rewards, and the proprietary cup itself will all have a cost that needs to be approximated to fit an ideal budget. Before we can move on to distribution we need to secure funding either from an internal source or outside sponsorships.

On to the distribution phase, the propriety cup will be distributed to the student body either through first year experience or dining services, similar to the reusable clamshell take out boxes. The propriety cup would also be available for purchase online and at the bookstore. Educational poster making student aware of the discount and rewards using the proprietary cup has, the proper way to recycle single use plastics, tips to becoming zero waste, and the impacts single use plastics have on the environment will be posted in high traffic areas like the John T. Washington center, Student Union, and Knights Plaza. Upon Aramark's approval, we will also be able to educate employees of the discounts they offer and any sanitary issues that can arise from reusable bottle refills.

To assess the success of the project we would speak with location on campus about the use they see and we would also observe sales from the bookstore. We will also do another detailed plastic audit to see if any reduction in single use plastics is observed as well as the recycling rate. Student surveys will be distributed to see if student are aware of the program in place and if they take advantage of it. Based on this data we will decide if it makes sense to invest in bringing the reusable cups to a larger student population or phasing out the program.

F. Literature Review

Currently at University of Central Florida there are some systems in place to promote the use of reusable bottles at campus location but many student do not seem aware of their existence. According to the March 2017 STARs report Aramark does offer \$.99 refills for coffee at all their Aramark locations but after communicating with Aramark they did not seem to be aware of this and only corporate offers such as Starbucks offering \$.10 off and Java City's \$.99 drip coffee with the use of reusable mugs seemed to be well known. During finals week the Cafe Bustelo in the Student Union offers 10 free refills if you purchase their mug. Aramark also expressed sanitary concerns about allowing students to use their own bottle for drink but through my research many other schools who have Aramark as their provider have still be able to allow student to use their own bottles.

One of the schools who has the most success with a reusable bottle program(Cupanion) is Rutgers University. Rutgers total enrolment total enrollment exceeds that of University of Central Florida by around 2,000 students (total enrollment year). Most of Rutgers success come from the fact that Aramark is not their service provider so they were able to take direct control of their own sustainability initiatives. They decided that they no longer wanted support the use of single use plastics so they took them out entirely and the students came up with offering Cupanion to ease the transition. Their initial cost for the program was around \$160,000 as they purchase bottles for around \$20,000 students. The student newspaper was the main sponsor and they put their logo on the physical cups. It is not required to buy physical cups although student would likely prefer it. Cupanion also offers stickers at around \$.90 a piece that could be distributed at a lower cost.

A school that did not see as much success was Ohio State. Ohio State purchased top of the line hot and cold safe cups that had the Ohio State logo and were also personalized with the students first name. After speaking with someone from Ohio State this appears to be the programs downfall along with lack of rewards offered. Many student were apparently fearful of using their mugs in case they got lost or broken. The novelty of having their name and class year turned them into more of a keepsake. The school also did not offer rewards for using the app and the main discount they had was 10 free refills included with cup and unlimited refills could be purchased for \$19.99. Ohio state also does not use Aramark as their dining services provider.

A smaller university, Rider, also implemented Cupanion and they said the biggest impact of the program is that it opened the dialogue about sustainability amongst students. They spent around \$18,000 on cups and tags and many campus vendors were able to offer discounts. University of Florida also has Cupanion but they saw limited student involvement in the program, similar to other large school. To our disappointment University of Virginia, one of the few schools who use Cupanion and also has Aramark as their dining service provider was never able to get back to us regarding their implementation of Cupanion. University of Virginia has a perfect sustainable dining score according to the STARs report indicating it is possible for Aramark to take more aggressive sustainable measures. Other schools who have Cupanions but were unable to respond to our contact was University of Florida and Berkeley.

Between reviewing University of Central Florida's STARs report and the climate action plan it is clear that dining services and waste has been a struggle for the university. One of

University of Central Florida's goal was to increase recycling to 75% by 2030 which currently does not seem attainable with aggressive action. With education and a reduction in total plastics needing to be recycled it will be easier for students to help the university attain this goal even if the university takes measures to sort trash in high volume areas assuming less of it can be produced with this program. Another goal is increasing landfill diversion to 75%, but the easiest way to divert waste is not eliminate the waste all together. The university has not seen any percent reduction in waste per weighted user since the baseline year of 2015 and this is alarming. After speaking with some school and reading articles about implementation elsewhere it is not only vital to assuage Aramark into prioritizing sustainability but also that the propriety bottle is released as a student initiative. Through the review it is clear that Aramark is the main limiting factor in terms of University Of Central Florida becoming more sustainable campus.

G. Work Plan

Listed steps

1. Talk to schools who have implemented Cupanion or other reusable bottle discount and reward programs.
2. Talk to Aramark about receiving discounts and being on board with Cupanion.
3. Work with Office of Sustainability to organize a waste audit.
4. Before implementing first run a campaign that allows student to be aware that they can use their reusable cups on campus and maybe receive discounts for them.
4. Talk to Cupanion about price.
5. Design and print posters.
6. Find sponsors outside of University of Central Florida if need be.

7. Survey students.

8. If all goals are met discuss dispersal with first year experience and bookstore.

9. After 1 year take another audit and see if program has made an impact.