



Understanding Residence Students' Motivations for Water Bottle Refilling and Reuse

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Refilling a reusable water bottle at a refill station
Photo credit: Georgia Kirkos

Overview

Plastic waste, a predominant petroleum product, is a major contributor to fossil fuel usage and global warming.¹ Canada is a large contributor to the global plastic crisis.² In 2018, 34% of plastic products for the consumption of Canadians was packaging materials, which included single-use bottles.³ Many Canadian universities implemented strategies to reduce plastic waste being generated, such as plastic bottle bans.⁴ McMaster University implemented the Bring Your Own Bottle (BYOB) initiative to encourage staff and students to use the refill stations across campus, alongside installing filtered taps in the kitchens of residence buildings.⁵ Given the importance of developing early sustainable habits, the goal of our study was to understand the perspectives of first-year residence students on refilling reusable water bottles following the implementation of the BYOB program and changes to water infrastructure. The findings and recommendations of this study are intended to propel further action to promote sustainable water consumption on campus.

Objectives

1. Collect information regarding residence students' experiences of water bottle reuse
2. Identify the barriers and motivations to water bottle refilling
3. Share recommendations to further promote refilling and reuse on campus

Reporting

To achieve our first objective, we conducted 21 individual interviews with first-year residence students. We asked open-ended questions regarding their experiences using reusable water bottles and the water refill stations across campus.

To achieve our second objective, we analyzed interview data and identified themes regarding student motivations and barriers to water bottle refilling and reuse. Students discussed their motivations and rarely mentioned barriers. As such, we identified the theme of 'motivations to refill' with three subthemes: 1) convenience; 2) water quality; 3) sustainability. Regarding convenience, students elaborated that the proximity and quantity of refill stations, and having a reusable water bottle, motivated them to refill. With respect to water quality, students prefer using the refill stations because they offer cold, filtered, and 'safe' water. We identified the third subtheme of sustainability as students described that refilling allows them to save money, practice environmental consciousness, and stay hydrated.

Our final objective was achieved by presenting our findings to the Bring Your Own Bottle Working Group. Previous findings reveal that students mistrusted tap water and lacked sufficient access to filtered water.^{6,7} Following the BYOB Group's work to increase access to and information about filtered water, we see evidence that these are no longer barriers to students. We recommend the BYOB Group to maintain the current infrastructure and continue their robust communication. Continued research over time and with more students will improve our understanding and allow us to continue making data-driven decisions to promote water bottle refilling and reuse on campus.

Collaborators

We would extend our gratitude to our Community Project Champions, Monica Palkowski and Holly Gibson. We also thank Dr. Kate Whalen for her guidance throughout this project. Thank you to the SUSTAIN 3S03 student group for providing us with an opportunity to conduct interviews and the BYOB Working Group for providing us with a platform to share our findings. Finally, we thank all of our participants for sharing their thoughts with us.