

Increasing Sugarless Beverage Consumption within a Cafeteria

Department/Organisation: Health Promotion Board (HPB) and Temasek Polytechnic Bistro Lab

In a Nutshell

The research team worked with an on-campus cafeteria to encourage people to consume sugarless beverages. Two different interventions were used. The first intervention involved using posters to persuade consumers to buy sugarless beverages through the use of nudges, while the second intervention involved rearranging the drinks such that sugarless beverages were placed at eye-level. The research team found that using posters to persuade consumers to buy sugarless beverages unexpectedly resulted in a lower percentage of sugarless beverages being purchased. In contrast, placing the sugarless beverages at eye-level almost doubled the percentage of sugarless beverages being purchased.

Understand

Sugared beverages are considered to be one of the barriers towards getting people to adopt a healthier lifestyle in the war against diabetes. Hence, in an effort to make the campus a healthier place, and also to answer the call on the war against diabetes, the research team worked with Bistro Lab, an on-campus cafeteria to explore useful nudges to encourage people to consume sugarless beverages, as compared to sugared drinks. Additionally, the research team was keen to examine the efficacy of Behavioural Insights (BI) interventions in high-control environments such as the cafeteria itself, where the researchers had high control over the drink sales process.

Solve – Ideate

Two interventions were used. The first intervention involved using posters to persuade consumers to buy sugarless beverages through the use of nudges such as timeliness and saliency. The second intervention involved rearranging the drinks such that sugarless beverages were placed at eye-level.

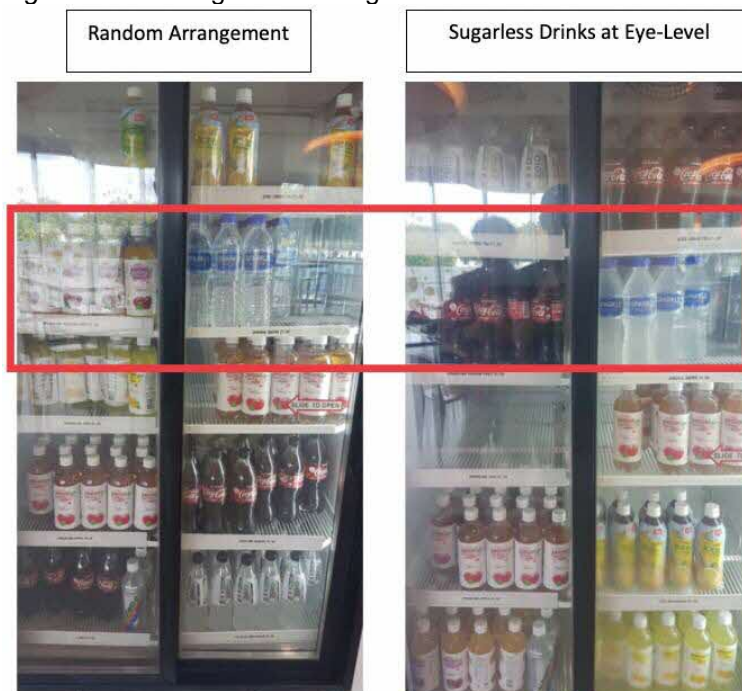
Poster: The posters were placed at two key decision points, with the aim of encouraging consumers to choose sugarless drinks over sugared beverages (*Figure 1*). Drinks were colour-coded according to their sugar content level, providing customers a convenient guideline for the respective drinks' sugar levels.

Figure 1. Poster design.



Rearrangement of Sugarless Drinks: The research team rearranged the position of the sugarless drinks in the cooler. They were placed at eye-level, with the aim of making these drinks more salient and easier for consumers to identify (Figure 2). Previously, the sugarless drinks were arranged randomly in the cooler (Figure 2).

Figure 2. Rearrangement of sugarless drinks.

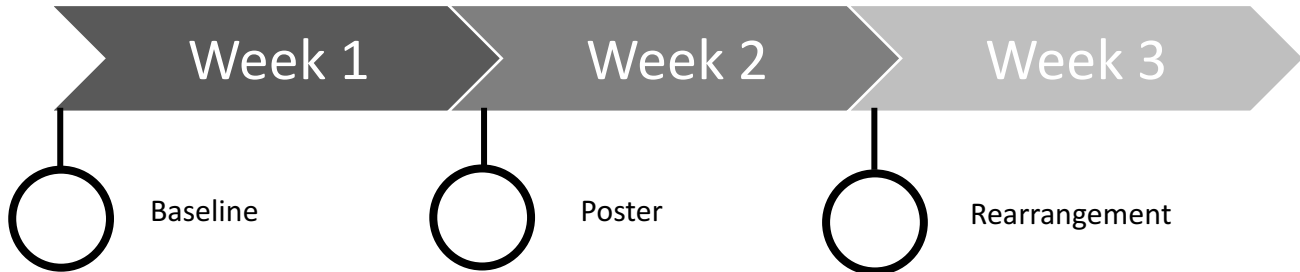


Solve – Implement

The study was conducted over three weeks in TP's Bistro Lab, a school-owned cafeteria (Figure 3). In the first week, the research team collected the baseline percentage of sugarless drinks sold in a typical week. In the second week, the researchers placed the posters at key decision points. In the third and last week, the

research team rearranged the position of the sugarless drinks in the cooler and placed them at eye-level. Subsequently, the percentage of sugarless beverages sold during Weeks 2 and 3 respectively was measured through the Point-of-Sale (POS) system and via the researchers' observation.

Figure 3. Study design



Evaluate

In Week 2, the poster was ineffective and dissuaded consumers away from sugarless drinks (Figure 4). A possible reason for this might have been that that poster also increased the salience of low-sugar (as opposed to sugarless) beverages, thereby attracting more consumers to that choice. In Week 3, rearranging the bottled sugarless beverages was effective and encouraged consumers to choose sugarless drinks over sugared drinks (Figure 5).

Figure 4. Percentage of sugarless beverages purchased in Week 2 (compared to Week 1).

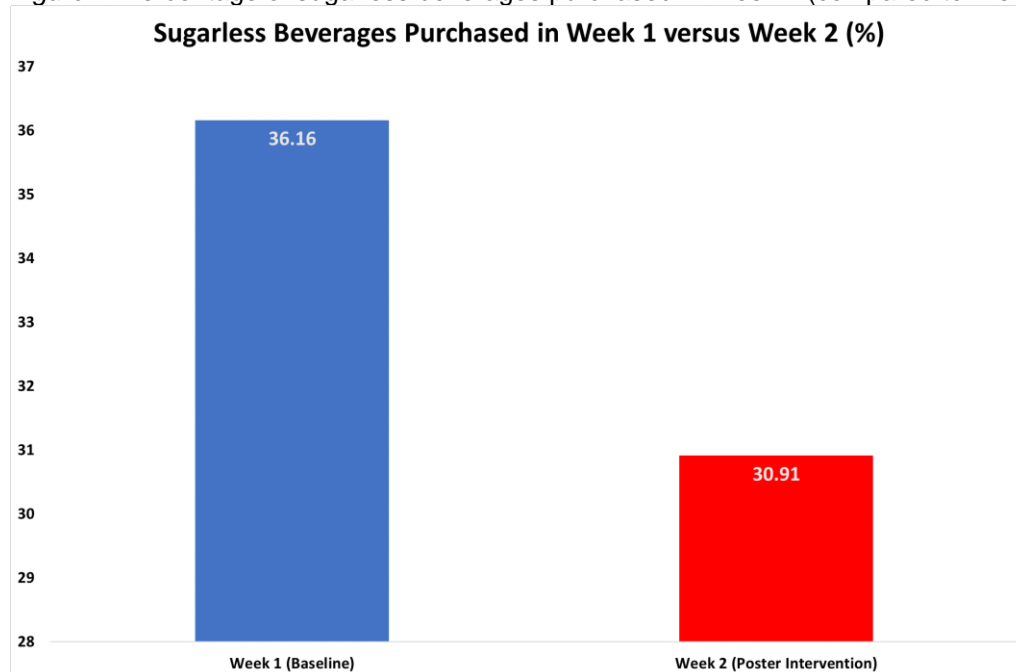
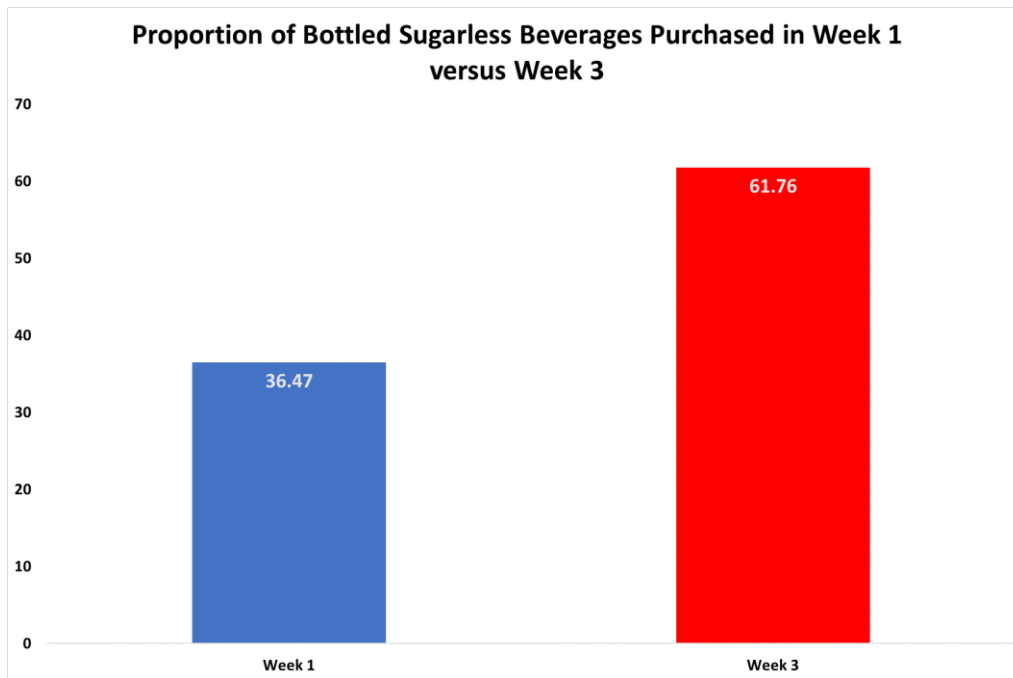


Figure 5. Percentage of sugarless beverages purchased in Week 3 (compared to Week 1).



Lessons Learnt

The poster had the unexpected negative effect of dissuading consumers from selecting sugarless drinks. From this, the lesson learnt was that we should be cautious not to send unintended messages in crafting our nudges, such as promoting low-sugar as opposed to sugarless beverages. A more direct nudge, such as placing sugarless drinks at eye-level, had a positive effect of encouraging consumers to choose sugarless drinks.

Next Steps

The next phase of this study involved investigating the effectiveness of BI interventions in other school canteens, where the researchers had low control over the drink sales process.

Increasing Sugarless Beverage Consumption within a Canteen

Department/Organisation: Health Promotion Board (HPB), Temasek Polytechnic's Short Circuit and Business Park Canteens

In a Nutshell

Two interventions were used to try to nudge consumers' decision to purchase sugarless beverages in Temasek Polytechnic's canteens. The first intervention involved using posters to persuade consumers to buy sugarless beverages, while the second intervention involved using three types of stickers with curated messages (nudges) that were pasted on the canteen tables. The researchers found that using posters to persuade consumers to buy sugarless beverages had no effect, and in fact resulted in a lower percentage of sugarless beverages being purchased. In addition, using the stickers to persuade consumers to buy sugarless beverages was effective initially, but this effect gradually wore off as time passed.

Understand

Sugared beverages are considered one of the barriers towards getting people to adopt a healthier lifestyle in the war against diabetes. This project was conducted concurrently with the previous one, where the researchers worked with an on-campus cafeteria and found that placing sugarless beverages at eye-level could increase their consumption. It should be noted that the cafeteria was a place where the Polytechnic had a high level of environmental control, and this degree of control was not present in the school canteens (i.e., difficult to get stall-owners to arrange the sugarless beverages at eye-level). As such, the researchers were keen to explore how to increase the consumption of sugarless beverages in the school canteen, where it was difficult to get stall-owners to arrange their merchandise in a certain way.

Solve – Ideate

This study was conducted over three weeks in two canteens in Temasek Polytechnic – Business Park and Short Circuit. In Week 1, baseline information regarding the percentage of sugarless drinks sold was measured (without any interventions). In Weeks 2 and 3, two interventions were carried out (poster and sticker interventions). The percentage of sugarless drinks purchased for each week and the percentage of sugarless drinks purchased under each intervention were subsequently measured. In summary, the interventions generally had a positive effect in encouraging consumers to choose sugarless drinks. Nevertheless, interventions decreased in their effectiveness over time.

Poster: The first intervention involved using posters to persuade consumers to buy sugarless beverages (*Figure 1*). The posters were placed at key decision points at Business Park and Short Circuit (i.e., near the drink stalls).

Figure 1. Poster design.



Sticker Intervention: The second intervention involved using three types of stickers with curated messages (nudges) and pasting these stickers on the canteen tables (Figure 2). The stickers displayed one of the three types of messages, nudging consumers to choose sugarless drinks. Different tables in both canteens were randomly assigned a different type of sticker, with no stickers assigned to approximately 25% of the tables.

Figure 2. Types of messages on the stickers.

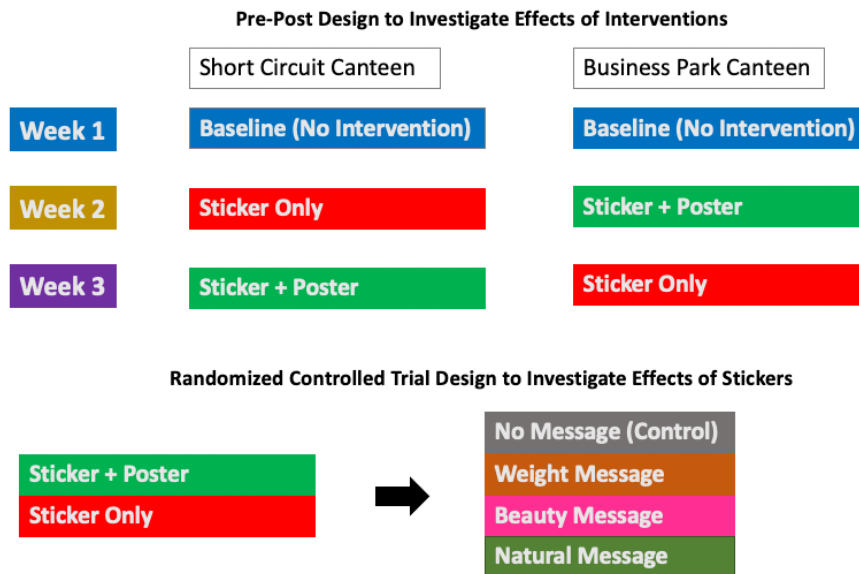


Solve – Implement

A modified pre-post design was employed for this study to investigate whether the interventions resulted in increased purchase of sugarless drinks. Within the “sticker-only” and “stickers and poster” interventions, we also used a randomized control trial design to investigate if the different stickers had different effects (Figure 3). The study was conducted over three weeks. In Week 1, baseline data was collected at both Short Circuit and Business Park canteens. To ensure that the type of intervention was not confounded with location, we counterbalanced the type of intervention with the

different canteens across the different weeks. Thus, for the sticker-only intervention, it was implemented in Short Circuit in Week 2, and Business Park in Week 3. For the sticker and poster intervention, it was implemented in Business Park in Week 2, and Short Circuit in Week 3. Within the sticker-only and sticker and poster interventions, the stickers will randomly assigned to different tables within the canteens. Hence, this meant that we could also investigate the relative effectiveness of each types of stickers using a randomized control trial design. The percentage of sugarless drinks purchased for each week and the percentage of sugarless drinks purchased under each intervention were subsequently measured.

Figure 3. Study design.



Evaluate

Overall, we did not find any consistent pattern of results with regards to the different stickers' effectiveness. Hence, we decided to collapse the data for the different stickers and analyse them as a whole. Both interventions (i.e., stickers-only, stickers and poster) generally resulted in more sugarless drinks being purchased (*Figure 4*), probably because they served as a reminder to consumers to choose sugarless drinks over sugared drinks. However, when we looked at the percentage of sugarless drinks purchased over weeks, we noted that the effect of the stickers might be gradually reduced over time, as the number of sugarless drinks purchased started to drop in Week 3 (*Figure 5*). We suspect this was due to the novelty factor of the stickers wearing out.

Figure 4. Percentage of sugarless beverages purchased across different conditions

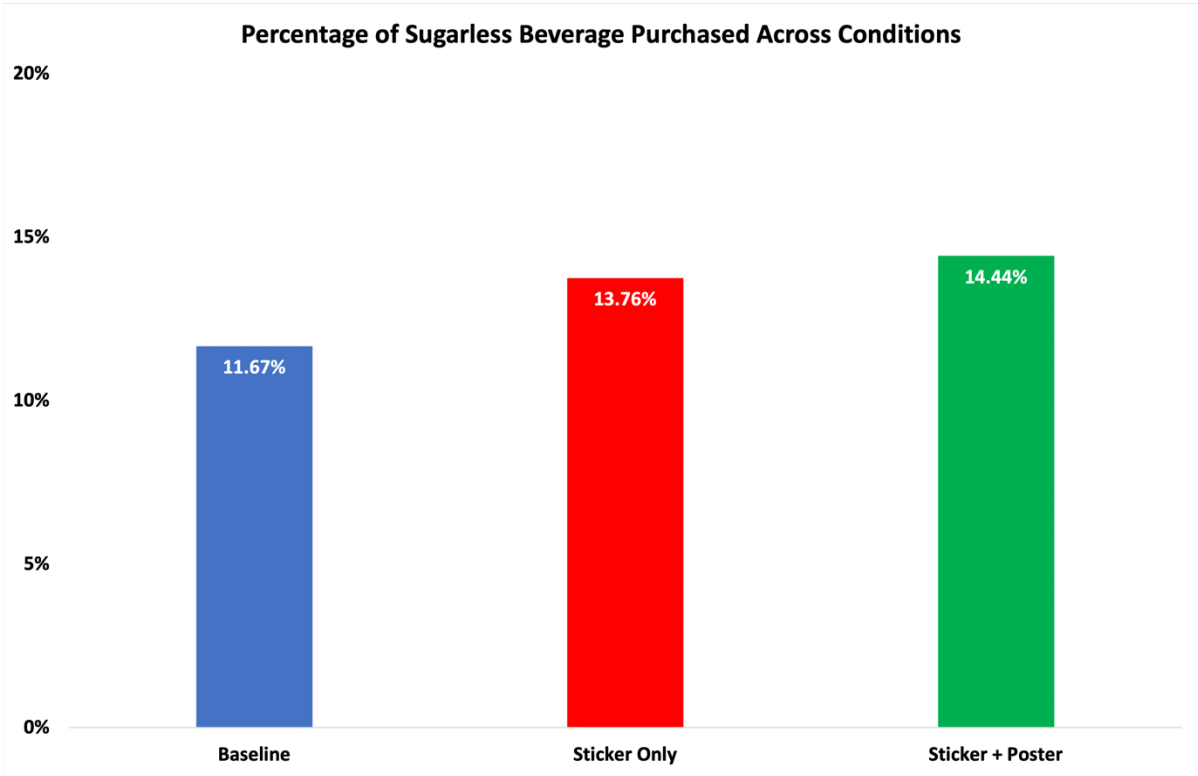
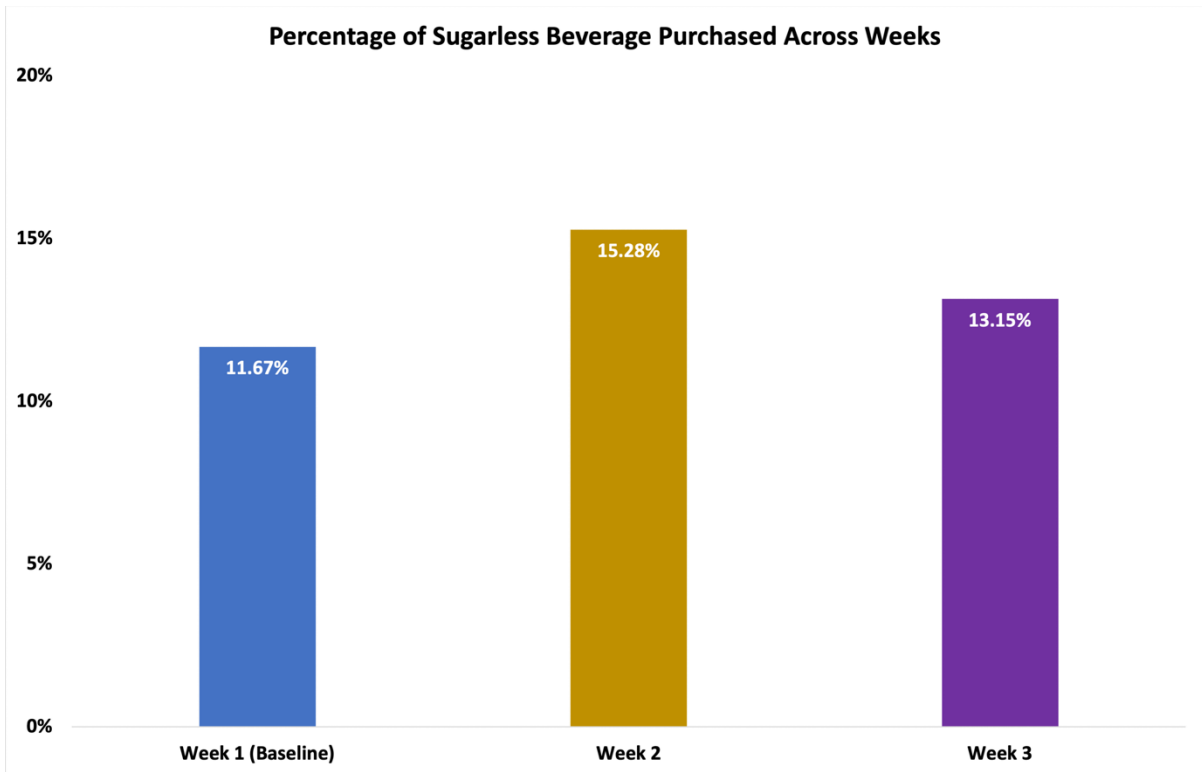


Figure 5. Percentage of sugarless beverages purchased across different weeks



Lessons Learnt

The interventions generally had a positive effect in encouraging consumers to choose sugarless drinks over sugared drinks within both canteens. Nevertheless, the effectiveness of the interventions seem to decrease over time. Hence, this project demonstrated that the novelty of the sticker messages might wear off after 2-3 weeks.