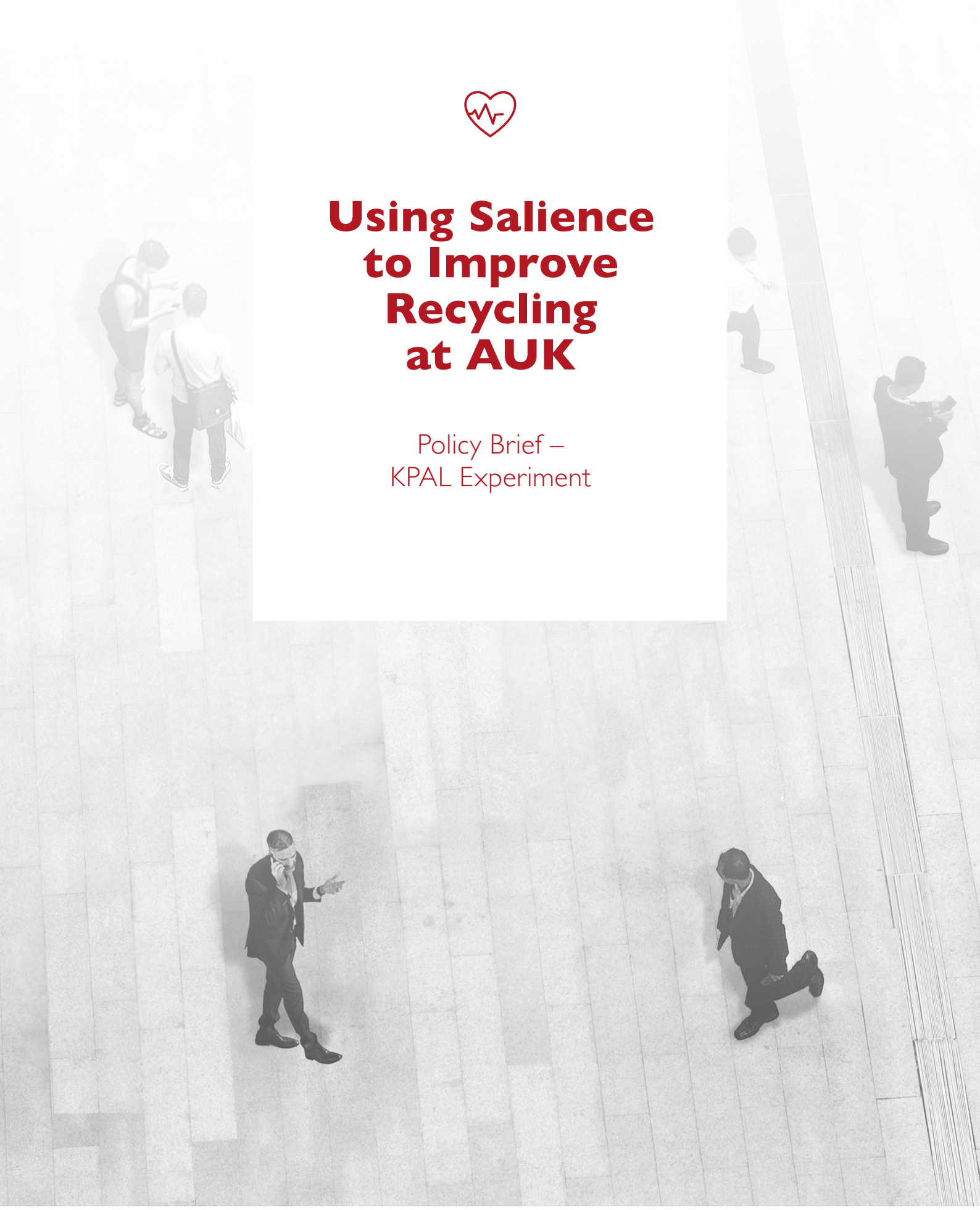

Using Salience to Improve Recycling at AUK

Policy Brief –
KPAL Experiment

مركز الكويت للسياسات العامة
Kuwait Public Policy Center

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Using Salience to Improve Recycling at AUK

Problem

Kuwait is one of the largest global producers of solid waste, according to a World Bank report, with 1.55 kilograms of waste per capita each day – the third highest among Arab and Gulf countries. Much of this is due to population growth rate that has increased substantially since 2011. Additionally, rapid urbanization and construction have contributed to the ongoing waste generation issue. Therefore, the burden lies on Kuwaiti citizens to exercise their civic duties and make persistent environmentally conscious decisions.

A previous study conducted in (country) used stickers as a visual prompt to encourage the separate collection of household food waste for recycling. The results show a significant 20.74% increase for treatment groups that were given the visual cue and that persisted in the longer term.

To address this concern, American University of Kuwait students in collaboration with the Kuwait Policy Appraisal Lab (KPAL), Nudge Lebanon and the B4Development Foundation – formerly Qatar Behavioural Insights Unit (QBIU) – engaged in a small-scale intervention to tackle some of the behavioural roots behind communal waste generation to increase use of recycling bins through salience and priming via visual cues.

Intervention

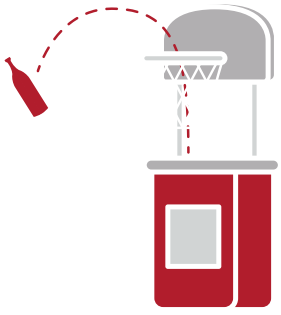
An intervention was conducted at two primary locations (A and B) in the American University of Kuwait where recycling bins are present. Each location contained four bins of different colour. The bins were monitored to assess the percentage of correctly disposed items as a percentage of total items in each bin over a period of 24 days each, yielding a total of 192 observations. Location B served as the baseline group and did not receive any intervention.

Implementation of the experiment was carried out as follows:

Days 1 - 8 (Baseline): Baseline cases were evaluated for locations A and B, and no intervention was implemented.

Days 9 - 16 (Intervention 1): Salient stickers were placed on each bin with icons pertaining to their respective disposable types (aluminium, paper and cardboard, plastic, and other) in location A and bin lids were left open. Bins in location B continued to be assessed as baseline cases.

Days 17 - 24 (Intervention 2): In addition to the previous intervention, basketball hoops were added above the bins for further salience in location A. Bins in location B continued to be assessed as baseline cases.

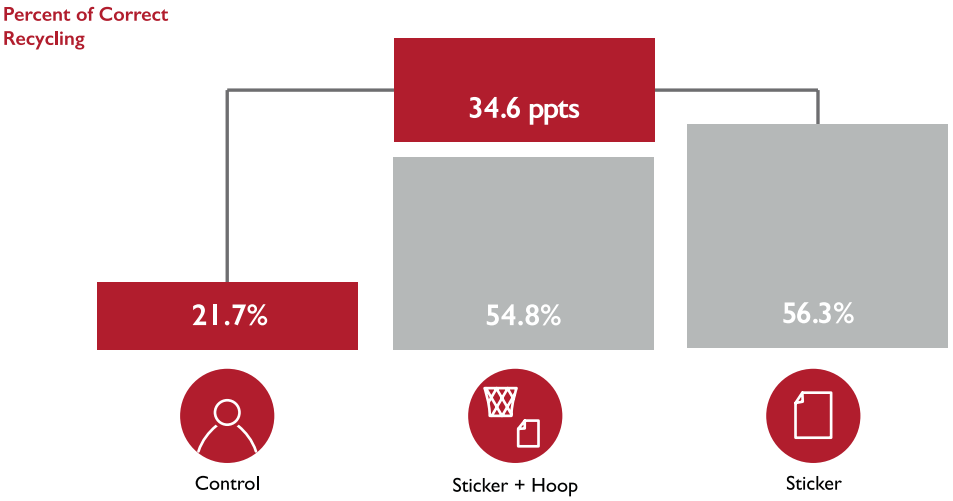


The idea being that students passing by the bins will take notice of the salient stickers and/or basketball hoops and will recycle their waste accordingly. Moreover, keeping the lids open for the bins removes the hassle of having to manually open the lids, as some students may prefer not to do so.

Results

Data analysis was performed using a difference-in-differences regression approach to estimate the causal impact of the intervention. While the initial intervention appeared to be statistically insignificant, the second intervention led to roughly a 35% (p-value = 0.012) increase in correct recycling among students, which was statistically significant. Generation of these results involved controlling for time and types of recycling bins to yield unbiased estimates.

Additionally, the mean percentages of correct recycling use between both treatment groups were significantly different from the baseline case. The stickers treatment group recorded approximately a 35 percentage point difference in average correct recycling compared to the control group. The stickers and basketball hoops recorded about a 33 percentage point difference in average correct recycling compared to the control group.



Moreover, the intervention also appeared to increase the incidence of recycling itself with the highest average number disposed material occurring in the sticker and hoop treatment group (23.2) followed by the sticker treatment group (17.5). Both averages were significantly different from the control group (5.7) but not from each other.

Conclusion

By increasing the salience of recycling bins in the American University of Kuwait campus, students were successfully nudged into both recycling more and correctly placing their disposables in the correct bin.

Moving forward, this intervention can be extended beyond the campus space and into more urbanized areas to assess the effect of salience in other environments. Nonetheless, the findings of this intervention offer important implications for the use of behavioral insights in sustainability initiatives.

[1] https://www.ecomena.org/landfills-kuwait/

[2] Shearer, L., Gatersleben, B., Morse, S., Smyth, M., & Hunt, S. (2017). A problem unstuck? Evaluating the effectiveness of sticker prompts for encouraging household food waste recycling behaviour. Waste Management, 60, 164-172.

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