

NOOH3 Nudging strategies in school canteens

Intervention design ●

The intervention tested the power of nudging strategies in preventing plate waste in school canteens by tackling its main drivers; its second objective was to provide direct daily measurements of Plate Waste for the whole menu. The nudging strategies were decided in collaboration with canteen staff and entailed different approaches:

- Visual (menu of the day, hunger traffic light, how to eat an apple)
- Participatory (demonstration on how to cut fruit from canteen staff)
- Educational (FW talks during tutoring time; message in the coordinator speech) **Drivers:** lack of knowledge on the menu composition; not being aware of own level of hunger and overprovisioning; lack of knowledge of cutting fruit.

Levers: merely providing information through posters is not effective enough to change behaviour, simple demonstrations can be more effective.

Effectiveness:

During the nudging strategies’ implementation, the total daily Meal Waste was significantly reduced among the four case studies, compared to the baseline values On average, students from all canteens wasted more food during the baseline than during the nudging strategies’ implementation. This difference, 19.29 g was, and represented a large size effect. Nudging strategies had a major effect on preventing daily dessert PW, as it decreased in total by 59% (14.43 g) in relation to the baseline scenario. This reduction was statistically significant. Our results also suggest that merely using posters to provide information to students may not effective enough, as interpretation could be subjective and not all students paid the same attention. On the contrary, simple demonstrations on how to cut and eat fruits performed by the staff seem to be effective Outreach: Students receiving the intervention daily during 10 days: a total of 1768. Then, canteen staff, school board members and teachers working or eating in the lunchrooms were aware of it. Even though their food waste was not included in the study.

Efficiency:

- Investment costs (materials, design, purchasing equipment): 4.000€ e.g.: printing of paper food diary; purchase of smart scales
- Labour costs: 40.000€, e.g.: wages for researcher
- Operational costs (logistics): 1.000€, e.g.: fuel for transportation, maintenance
- Other: 3.000€ , e.g.: administrative fees
- Sum: 48.000€

Sustainability of the action over time:

No long term effect available. Dissemination of the website (<https://escolescontraelmalbaratament.blogspot.com/>) created with all the nudging strategies designed and applied in the project, together with explanations on how to implement them. Also, it provides tools to quantify food waste and measure the interventions’ impact on plate waste. A workshop (online and in person) was celebrated to present the study results and the designed tools. The targeted group was the school canteens community, including: school boards, catering companies, administration, among others.

Transferability and scalability:

The barriers identified were the ratio of Nº students per 1 staff member. The highest the ratio, the larger the work overload of canteen staff, what would make more difficult to implement new actions such as interventions aiming to reduce food waste. It could be replicable in all the schools functioning in the same way as the ones in the study, which would be at least all the public schools with canteen service in Catalonia. Enablers for scalability: School boards and catering companies willing to prevent food waste.

Systemic effects:

The interventions had a rising awareness effect on the canteen staff regarding the amount of food wasted. Many of them found this intervention useful in order to review their school canteen processes to reduce the amount of food wasted, together with the menu acceptance by the students.

COUNTRY ●

Spain

IMPLEMENTED BY ●

CREDA

DURATION ●

February 2019 – May 2019

Information sourced from:

Swannell, R., Bruns, H., Brüggemann, N., Candéal, T., Casonato, C., Diercxsens, C., Garcia Herrero, L., Gil Roig, J.M., Haglund, Y., Van Herpen, E., Kaptan, G., Kasza, G., Mikkelsen, B.E., Miranda Pires, I.M., Obersteiner, G., Vainioranta, J., Vittuari, M., Watanabe, K. and Sala, S., Evaluation of consumer food waste prevention interventions, Publications Office of the European Union, Luxembourg, 2023, doi:10.2760/224541, JRC133003