

SNUS SUSTAINABILITY: NUDGE FOR NATURE

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The problem:



Poor disposal and sorting of snus boxes and pouches.

Hypothesis:



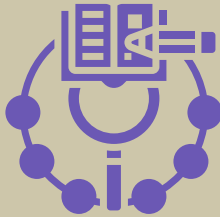
"There is a tendency of poor sorting of snus boxes and pouches among students at NTNU."

Goals:



- Reduce microplastic in nature and plastic in general.
- Gain insight in barriers, attitudes and behavior in relation to the sorting of snus.
- Change sorting behavior among students

Approaches:



- Nudging
 - Social norms
 - Visual cues
- Observation
- Interviews



Background theory

100 million snus-boxes sold in Norway each year ~ 1500 tons of plastic (Pilberg, 2022).
63 % of street litter in Oslo consisted of cigarettes and snus (Hold Norge rent, 2019).

Snus pouches contain microplastics, which are not biodegradable (Naturvernforbundet, n.d.). 18% of people in the age of 15-29 have thrown their pouches in the toilet, resulting in pouches ending up in the ocean (Schwebs, 2022).

Immune cells engulf microplastics, which can lead to inflammatory responses and disrupt the balance of the gut and intestinal system (Hirt & Body-Malapel, 2020).

There is limited information regarding the proper sorting of snus boxes and snus pouches, and generally, there seems to exist little attention given to the issue. Based on personal observations, few snus brands have provided instructions that snus boxes should be sorted as plastic and snus pouches should be sorted as general waste.

Effort heuristic: The tendency to make a mental shortcut by choosing the option that is most convenient and requires least effort (Kruger et al., 2003, p. 92).

IMB-model: Emphasizes the importance of correct and sufficient information in shaping the desired behavior. Lack of this can function as a barrier (Fisher et al., 2003, p. 85).

Social norm theory: Set of beliefs about what other people are doing and what behaviors they approve or disapprove (Schultz, 1998, p. 25).

CONCLUSION

There is a lack of awareness among NTNU students regarding the sorting and waste management of snus, 82 % indicated that they were unaware that snus boxes and snus pouches should be sorted separately, with the majority stating that they typically dispose snus boxes in general waste. It appears that the sorting of snus is not a concern that many have actively considered, and our findings indicate a tendency to discard snus boxes and pouches, primarily due to convenience and lack of knowledge. In addition, students tended to use the see-through bin to a greater extent, supporting the idea that socially desired behaviors can be achieved by making previous behaviors more visible

INTERDISCIPLINARY

- Psychology: Lisa
- Marine biology: Sara
- Immunology: Jessica
- Sustainable development: Mari
- Counseling: Mari

Methods & Results

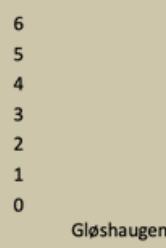
1 Concept idea

By constructing two bins that facilitate the sorting of snus into a general waste (for the pouches) and plastic waste (for the bins), we aimed to determine whether students at NTNU were willing to use the bin and identify any potential barriers they might encounter. We used a nudging experiment, by placing the bins in near proximity to the other regular bins, making it easier for students to sort snus correctly. The first bin was the control bin, which did not show the content of the bin, while the other bin was made so people could see the content. With this, we attempted to measure the inclination to adhere to social norms, and the effect of visual cues. In addition, we did a simple interview of five questions, measuring convenience and lack of knowledge as potential drivers for poor sorting behavior and barrier for desired behavior.

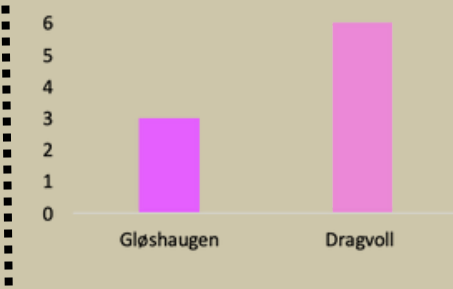


3 Social influence experiment

Control bin:



See-through bin:

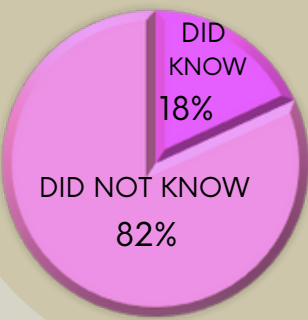


We observed a tendency among people to more readily choose the see-through bin (9 persons) in favor of the control bin (5 persons). These results supports the hypothesis that individuals are more prone to mimic previous behaviors.

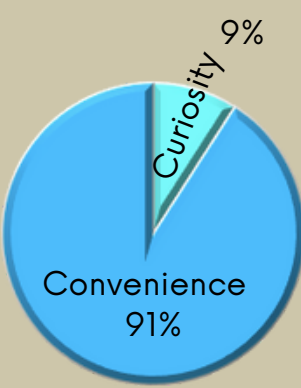
2 Observation and interviews

We employed an observational study conducted over a three-day period at two distinct campuses. We observed people that approached the bin and subsequently conducted interviews of the people that used them.

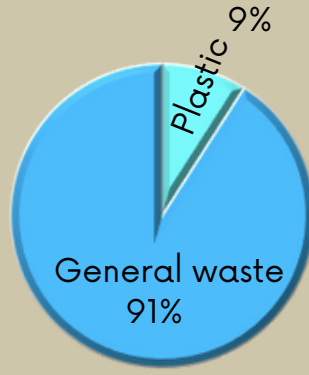
"Did you know that the box and the pouches should be sorted separately?"



"Why did you use this container?"



"How would you throw it if the container was not here?"



4 Limitations

- Few interviews
- Short period of time
- Plastic waste at Gløshaugen, but not at Dragvoll
- Lack of resources (making the bins)
- The bin having been there one day before, making the bin more recognizable on day two

5 Future directions

Make the design more professional
Make the bins more informative

Test both bins at the same time at the same type of location
Involve other target groups other than students.

Get a bigger sample of interviews and observe for a longer time-period.

6 Social Value

The results showed that students were not aware of how to sort snus boxes and pouches, but that they would sort if given the opportunity, this provides value to society because this demand for an opportunity to sort snus correctly can lead to people using interventions for sorting snus. By utilizing nudging theory, various societal organizations can encourage proper recycling of snus boxes and pouches, thereby promoting the desired behavior. Additionally, this initiative has the potential to raise awareness among students about the correct way to sort snus, hence we are moving towards the goal of the village theme by reducing plastic in Norway.

The United Nations Sustainable Development Goals (United Nations, n.d.):
Goal 12: Ensure sustainable consumption and production patterns
12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

Sources:

