

Better taste, less waste?

Food acceptance, intake and plate waste measurement in Swiss school canteens

Dr. agr. Franziska Götze, Charlotte Bourcet & Eugenia Harms



Project goals

Develop a methodology to measure food acceptance, waste and nutrient losses in school canteens.

Measuring the acceptance of lunch in school canteens.

Better understanding of:

- Functioning of lunch in school canteens
- Factors influencing acceptance
- Composition of plate waste
- Overview of "wasted" nutrients

Material and methods

- Semi-structured interviews with chefs of children's canteens (pre-school and school-age) (n=3) (The canteens are «Fourchette verte» certified.)
- Analysis of meal component acceptance in canteen setup
- Overproduction and plate waste manual weighing for each meal component

Interviews

→ The (perceived) food acceptance of the children is relatively good & food waste is on the agenda of the interviewed chefs.

→ High self-motivation in preparing menus that are appealing to the children catered for.

→ (Low) plate waste is also related to the way the food is served (e.g. self-determined portion size).

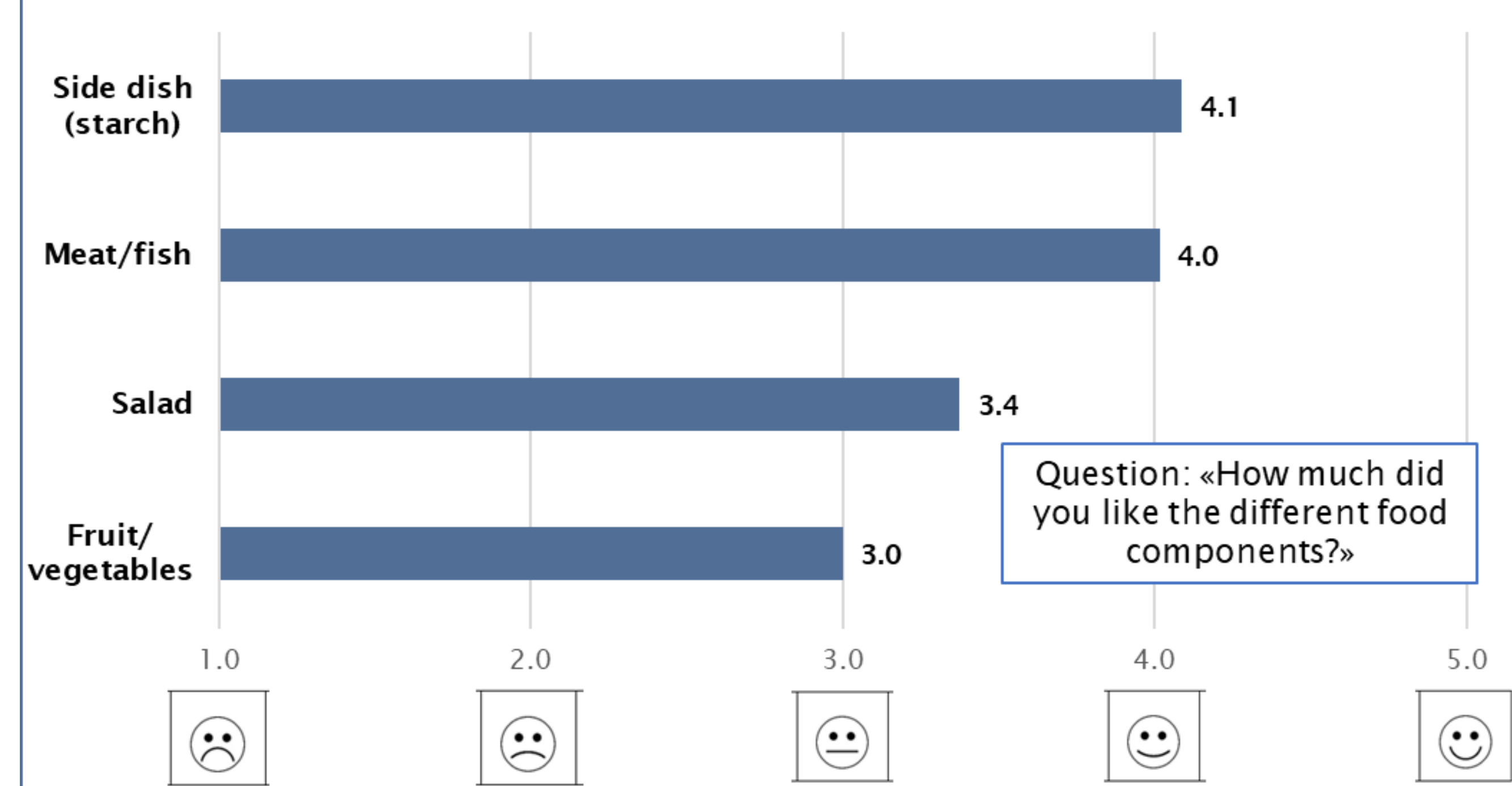
→ On a regular basis, feedback is sought from children and/or parents, menu planning is adjusted, and new cooking techniques and recipes are tried out.

→ Chefs consider a discrepancy between the recommended portion sizes of the "Fourchette verte" label and actual consumption → *less overproduction*.

Results

Food acceptance

Figure 1: Average acceptance of components in school lunches (n=564)



Food waste

Figure 2: Analysis of food waste in two selected school canteens

	School 1 (n=182)		School 2 (n=382)		Weighted average food waste*
	Over-production	Plate waste	Over-production	Plate waste	
Meat/fish	17%	2%	15%	11%	24%
Fruit/vegetables	15%	3%	35%	22%	44%
Salad	22%	3%	33%	25%	47%
Side dish (starch)	16%	2%	25%	9%	29%

* Note: Part of the overproduction is either given to staff or frozen after mealtime and can thus be reused. However, this share varies and was not recorded.

Preliminary conclusions

- ▶ Experience and education of staff (e.g. on portion sizes for children) are crucial for reducing food waste.
- ▶ Sensory education to increase children's acceptance of food takes time! Even if food waste occurs in the process, it is certainly worthwhile.

Next steps

- Better understanding of the acceptance of lunch with the help of sensory description
- Nutrient loss measurement in meals in selected school canteens