Identification of basic tastes in foods before and after training among 4-6 year old children – a pilot study

Magnusson, E.[1], Prim, M.[2,3] and Wendin, K.[1,2,4]*

[1.] Food and Meal Science, Kristianstad University, Sweden, [2.] Food and Bioscience, SP Technical Research Institute of Sweden, [3.] Dept of Food Science, University of Gothenburg, Sweden, [4.] Dept of Food Science, University of Copenhagen, Denmark

**Corresponding author: karin.wendin@hkr.se*

Introduction: The individual perception of taste differs to a great extent and is due to both ability to detect basic tastes and to taste concentrations. Taste preferences and identification, including verbalisation of the taste experience may be improved by learning, either via the socialisation process or strategical learning procedures.

The aim of this study was to examine 4-6-year old children's abilities to identify basic tastes in foods before and after training with basic taste solutions. Further, to study the children's abilities to verbalise their taste experiences before and after the training.

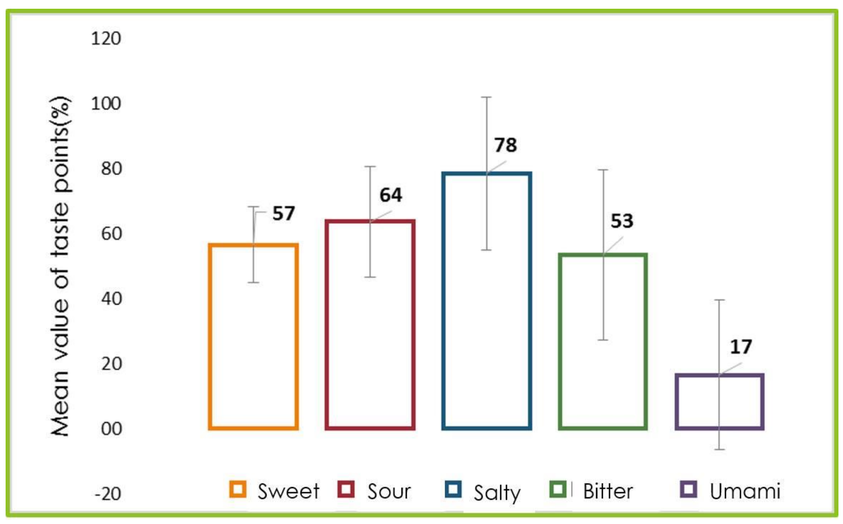
Methods: Eleven children aged 4-6 years participated in the study conducted at a Swedish preschool. The study consisted of four parts:

1: Discussion about basic tastes.

2: Taste session of ten different foods while discussing the tastes.

3: Training session in which the children learned to recognise the basic tastes sweet, sour, salty, bitter and umami by tasting basic taste solutions.

4: Identification test: The children were asked to answer which of basic tastes they could identify in different foods. It was further studied how the children verbalised the tastes of the foods.



Results: Training improved the ability to identify the basic tastes. Saltiness was sígnificantly the easiest taste to identify, both before and after trraining. Verbalisation was improved by training.

Discussion: A strategy to make children more curious and interested of foods and tastes is to conduct training sessions with basic taste solutions. This may benefit young children gaining a positive approach towards new tastes and flavours and also to foods in general.

Conclusion: The children had a significantly higher ability to identify salty taste compared to other basic tastes, both before and after training. Training did improve the children's abilities to detect and verbalise all basic tastes after basic taste training. Due to verbalisation the children went from naming the tastes as "tasty" or "disgusting" to being able to put words on, and to identify many of the basic tastes in each food.

Kristianstad University Sweden

Contact: karin.wendin@hkr.se