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Expert evaluation of co-created snack ideas by children in two settings: Creative focus group and online platform

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Keywords: Co-creation Children Healthy food Expert evaluation Online platform Focus group	Consumer co-creation has gained popularity in innovation processes aiming to bring consumers closer to producers and service providers. In the light of current societal issues related to food behavior (obesity, non-communicable diseases), co-creation presents a way to reach consumer groups, in particular those who are traditionally not convinced by healthiness alone, such as children. However, it remains debated if consumers, especially children, can generate in- novative ideas by co-creation, and which would be the best procedure for that (online platforms vs more established procedures such as focus groups). This study aimed at evaluating Norwegian children's ideas for healthy snacks gener- ated in a focus group and an online setting by industry experts. Professionals from the Norwegian food industry working with new product development ($n = 18$) evaluated the idea concepts via an online questionnaire. They first selected the five ideas they found most promising (multiple choice question based on the picture of the original concept illustration by children and a concept description). For the five ideas selected they rated the concepts according to novelty, value, feasibility and specificity on a 7-point Likert scale. Twenty out of 30 proposed ideas were chosen by at least one expert. The ten most frequently chosen ideas consisted of four focus groups and six online platform concepts, the top five having been generated online. The eval- uation of the top five ideas from each setting indicated good feasibility (potential for implementation, rating 5.0) and value (potential to enable children's healthy eating, rating 4.8), intermediate specificity (degree of detail in concept explanation, rating 4.5) and a relatively low novelty (3.3). There were no significant differences between the online platform and the focus group settings. However, the test power is too low to draw final conclusions. Results suggest that children can ideate feasible and valuable snack concepts and that online platforms.

to focus groups for first ideation steps allowing to generate many ideas efficiently.

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Figures and tables



Fig. 1. Idea concepts (with news paper brainstorming technique, [1]) for healthy snacks from a co-creation study with children (9–13 y. o.) from two settings, creative focus group and online platform [2].



Multiple choice, co-creation ideas creative focus group / online platform setting

Rating (7-point Likert scale), top-5 each setting



Fig. 2. Experts from the Norwegian food industry (N = 18) chose their top-5 idea concepts based on a description and the original draft by children and rated them according to value, novelty, feasibility and specificity on a 7-point Likert scale [3]. Only idea concepts chosen at least by one expert are displayed.

CRediT authorship contribution statement

Martina Galler: Conceptualization, Methodology, Investigation, Formal analysis, Visualization, Writing – original draft. **Paula Varela:** Conceptualization, Methodology, Investigation, Writing – review & editing, Funding acquisition.

Data availability

Data will be made available on request.

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Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Martina Galler, PhD, is a researcher at the Norwegian Institute of Food, Fisheries and Aquaculture Research (NOFIMA) in the department of sensory, consumer and innovation where she acquired a PhD within the Marie Sklodowska-Curie EU project Edulia. She investigated methodological aspects of conducting research with children in the healthy eating context aiming to involve children actively.

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Prof. Varela leads the EU projects *Edulia*, a multidisciplinary training network, looking into bringing down barriers to children healthy eating and *EAT4AGE*, Palatable, nutritious and digestible foods for prevention of undernutrition in active aging. She is also part of the *InnoFoodAfrica* project, supporting the training of African researchers in Sensory and Consumer Science.

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