

# "SPECIALE", A PARTICIPATORY SCIENCE PROJECT IN HUMAN NUTRITION

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# OBSERVATIONS, QUESTIONS, OBJECTIVES & HYPOTHESES

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*"Current nutrition education programs often fail to significantly change children's eating habits, especially in less advantaged populations"*

### Design and test a more acceptable educational device as it is co-constructed<sup>1</sup>

- This would facilitate the **dissemination of discourse promoting sustainable food practices** within the population, and ultimately lead to **changes in eating behaviors favorable to health.**

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<sup>1</sup> Morin, O. et al.. 2017. Engaging with Socially Acute Questions: Development and validation of an interactional Reasoning Framework. Journal of Research in Science Teaching,

# RESEARCH QUESTIONS

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How to build a food education device more effective for disadvantaged children?

## ? What should be the contours and content of a food education action for disadvantaged children?

- What **topics** should be addressed?
- What **behavior change** objectives should be chosen?
- What **messages** should be disseminated?

## ? To what extent can such a program impact populations?

- Does it change **discourses** on food?
- Does it **spread** in the population?
- Can it change **consumption habits**?

How to build a food education device more effective for disadvantaged children?



## APPROACH

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- + A **participatory action research**
  - scientists
  - children and parents
  - teachers
  - School catering staff
  - public or associative actors
  
- ++ Creation of two **serious games**, built in a **participatory** way around food, with children on one side, parents and food education actors on the other side.
  
- +++ Evaluation of the **transferability of the device**

- ↳ The game will be built using a participatory method: the **ARDI** method ( = **Actors, Resources, Dynamics, Interactions**).
- The starting question for discussions will be: **"What food action paths would you like to implement in your neighborhood?"**.

- Use in various contexts and with different audiences, to **generate ideas for concrete action paths**
- Create a **fun support**, accessible to all around the theme of food education
- Bring together different actors to discuss and **create a state of the art** of the food offer and improvement paths
- Have **diverse views** that can help the territory improve its food offer and approach to food education
- *Give everyone a voice on food!*

↳ We will use the general framework for evaluating public health action "RE-AIM" (Glasgow et al, 1999; Glasgow et al, 2019): *Reach* or Program Reach, *Effectiveness* or Effectiveness, *Adoption* by the intervenants, *Implementation* or Program Implementation, *Maintenance* or Maintenance over time of effectiveness and/or intervention.

# FOCUS ON THE ARDI METHOD

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Dissemination of educational documents



Creation of a conceptual map





**THANK YOU FOR YOUR ATTENTION!**

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## (I) CREATION OF THE DEVICE, MODELING OF ACCOMPANIMENT

- Participants learn and exchange knowledge by creating, **modifying a model aimed at explaining the phenomenon studied and observing the simulations it produces** (Collectif ComMod, 2005).
- We are building a **computer model by multi-agent simulation** (Taillandier et al, 2021) that can **simulate the propagation of messages** about food in a population (Thomopoulos 2021).
- This model allows members of the citizen assembly to **test the impact of different messages and food education strategies**
- This model is **produced by all participants in the project following the ARDI method** (Etienne, 2011) where "food messages" (i.e., discourses on food) constitute input data for the computer model (Thomopoulos, 2018, Abou-Jaoude 2022)?

## (II) IMPACT OF THE DEVICE, STUDY OF DISCOURSES ON FOOD

- Recording of **messages present in discourses** on food held during meetings of the citizen assembly, as well as in schools in the study area, throughout the co-construction process
- The experiential knowledge of the different participants in the citizen assembly is collected, which makes it possible, thanks to the ARDI method, to **build a model of message dissemination** as close as possible to reality.
- Qualitative data in the form of "food messages" are transformed into "formal arguments" according to a **knowledge engineering methodology** and organized in the MyChoice tool (Thomopoulos 2022) to track the evolution of discourses on food.
- This method will also be applied during the implementation of the food education device through observation on the ground, to track the **evolution of discourses among beneficiaries**.