Healthy cooking for people with intellectual disabilities

Partner
Living IT Lab (www.livingitlab.dk)

Contact person
Stefan Tholstrup Schmidt
E-mail: sts@livingitlab.dk

Problem
For citizens with intellectual and learning disabilities it can be a great challenge to prepare healthy and nutritious food. Often, people with intellectual and learning disabilities lack knowledge about healthy food and have little experience with cooking. Furthermore, many people with intellectual and learning disabilities in Denmark live in one of the approximately 800 care homes (institutions with professional staff), where the cooking is handled by the staff who are then responsible for maintaining ‘the healthy lifestyle’ of the residents.

Research show that obesity is more common among people with intellectual and learning disabilities than among the common population, and thus it must be considered as a great health issue for this group of citizens (Mad til forhandling, 2005). Living IT Lab wish to make it easier for people with intellectual and learning disabilities to prepare healthy and nutritious food and thereby prevent health issues related to poor lifestyle, by improving their abilities to maintain a healthy diet.

Today there is a great variety of apps intended to inspire and support the user in preparing healthy food, maintain a healthy diet, purchase healthy foods, and be inspired to explore new foods or recipes.

These apps are however aimed at users without intellectual and learning disabilities and may therefore be difficult to use for the target group in question, who often have difficulties with reading, writing, understanding complex words and concepts as well as staying focused. Instead people with intellectual and learning disabilities may need simple audio-visual means of communication and very pedagogical step-by-step instructions for basic cooking practices. This could be guides for how to follow a recipe, handle a knife, wash your hands, clean the kitchen, and handle certain types of food.
Currently, Living IT Lab is investigating if a ‘healthy cooking app’ will be a useful approach to achieving this goal, and if so, how such an app can be designed. The purpose of such an app would be to:

- Make it easier for people with intellectual and learning disabilities to learn and master healthy cooking
- Increase knowledge and awareness about a healthy diet for the target group
- Motivate intellectually disabled to maintain a more healthy diet and give them good experiences with preparing healthy food – alone and together with other people

**Target groups**

The primary target group is citizens with intellectual and learning disabilities, regardless of age and gender

The secondary target group is citizens with other cognitive, psychological or physical disabilities, e.g. brain damage, cerebral palsy, autism, ADHD, dementia, Alzheimer, or memory loss

**Requirements**

- To successfully respond to this case, you must produce a digital prototype that fulfill the following requirements:
- You must develop a prototype for a 'healthy cooking app' for tablets and smartphones that build on a thorough understanding of the needs of users with intellectual disabilities
- The solution must be designed in a way that makes it accessible for the users. This includes considerations about the language, type of communication, structure, etc.
- The app must motivate the user and make it a rewarding experience to cook healthy food, e.g. by providing audio-visual support in all phases of the cooking process
- The app must provide support for all parts of the cooking process, including grocery shopping, cooking, setting the table, cleaning. The app may also give feedback on choices made by the user
- The app should adjust to the actions of the user
- The app must enable the user to develop and learn new knowledge and skills about healthy cooking

In your project, you should furthermore investigate the following questions:

- What needs and challenges does citizens from the target group experience with regard to cooking?
- How does cooking take place where these citizens live? This include care homes following ‘the danish service law’: Serviceloven §107 og 108:  
  [http://www.socialstyrelsen.dk/handicap/socialpsykiatri/om-socialpsykiatri/socialpsykiatriske-tilbud](http://www.socialstyrelsen.dk/handicap/socialpsykiatri/om-socialpsykiatri/socialpsykiatriske-tilbud)
- How does cooking take place where these citizens work? E.g. Glad Mads cooking education:  
  [http://kbh.gladfagskole.dk/undervisningsplan-0](http://kbh.gladfagskole.dk/undervisningsplan-0)
• Which types of IT support already exists (e.g. apps, sound recipes etc.) and which types of solutions could be the future for the target group?
• How do you best communicate with citizens with intellectual disabilities (pictures, symbols, sound, words etc.)?

Resources
• LEV - Landsforening for mennesker med udviklingshæmning og pårørende: http://www.lev.dk (Danish)
• Information about intellectual and learning disabilities: http://en.wikipedia.org/wiki/Intellectual_disability
• Hvad vil det sige at være udviklingshæmmet?: http://www.lev.dk/media/17551/hvad%20vil%20det%20sige%20at%20v%C3%A6re%20udviklingsh%C3%A6mmet.pdf (Danish)
• Mad til forhandling (rapport fra socialstyrelsen omkring udviklingshæmmedes livsstil og overvægt): http://shop.socialstyrelsen.dk/products/mad­til­forhandling (Danish)
• SMUT - guide til et sundere liv (LEV - Landsforeningen for udviklingshæmmedehjemmeside med guider til sund madlavning): http://www.smutprojektet.dk/Default.aspx (Danish)
• Glad Mad - is the socio-economical TV Glad Foundation’s youth education in cooking. They handle cooking in the canteen in the city hall of Allerød Municipality, Café Ingeborg in Ringsted and TV Glad’s own canteen. http://www.gladmad.dk (Danish)
• ULFs (Udviklingshæmmedes Landsforbund) Digisund project (project and app about eating healthy food): http://www.ulf.dk/digisund/ (Danish)

Cooking apps (for inspiration)
• Jamie Olivers cooking app (uses a lot of video and pictures): http://www.jamieoliver.com/apps/
• Website that showcases different cooking apps for kids: http://www.appysmarts.com/tagappset/cooking,id_999.php
• Big Fork Little Fork (cooking app for kids): https://www.youtube.com/watch?v=Q1-3FKnKwlU

Field access
For field studies and interviews with the target group about their challenges in connection with preparing healthy and nutritious food, you can contact the care home (Daghjem) Væveriet. At Væveriet there is a kitchen where people with intellectual and learning disabilities prepare food in cooperation with the staff.

Contact person at Væveriet
Ljiljana Boskovic
Mobile: 21 69 48 12
E-mail: ce29@sof.kk.dk

Væveriets website: [http://www.paletten.kk.dk/Tilbud/Vaeveriet](http://www.paletten.kk.dk/Tilbud/Vaeveriet)