

A Taste of Inclusion: Sensitizing People with Cooking workshops at the UD Living Lab

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Abstract

In the context of reintegrating people with a disability in daily life, workshops and trainings are often given in a medical context with focus on the adaptation of the body and mind. In the UD living lab in Hasselt, the idea was initiated to give cooking workshops for everybody who is interested in cooking for independent living. This way focus is put on pleasure and fun for all. The architecture as well as all available tools are designed with a design for all strategy fitting in a cultural model approach that relies on the expertise of people with a disability to improve design processes. This paper reports on the first pilot cooking workshop in which people were invited to cook an Italian meal. The outcome proves that people appreciate the attention and empathy in which the environment as well as the tools are designed. The attention given to affective and behavioral aspects of tools and environments do contribute to the whole cooking experience. Moreover, the mental associations of the products with their exact origin even influences the experience of the cooks.

Introduction

Food tools and environments: keen examples for DfA

Food is one of the primary needs that gives living beings the energy for life. Besides a shelter it is the most important need to survive and to keep the energy level balanced. Since prehistory the preparation of food is an innovative process at several levels: clarifying the edibility of food, finding the right cooking method (cooking time, spices, technique, recipes,...), making a shelter and tools for the preparation and designing the right environment and tools for the eating process. This way evolution has made food part of human culture and social life. Preparing food is an act that contributes to the whole food experience. Based on the insights and experiences of the cooking methods, the tools and shelters are historically characterized by their evolution. In a way we could state that these cooking elements are the most keen examples for designing for people because they relate to so many of us. Moreover, food is a primary need and consequently its preparation has to be useful for as many people as possible. From spoon to cooking fire, history showed that design improved safety, hygiene, usability, adaptability, flexibility, comfort, cognition, tolerance for error, size, space, privacy, etc. All these needs are also the primary goals of Design for All. Designing for all is a design strategy resulting in an environment, product or service in which the user doesn't have to adapt him/herself but the strategy results in design that supports and serves the actions and experiences in a positive and elegant way. Related to primary needs it sounds like an evident way of designing. However, although the manufacturing opportunities have

never been so significantly diverse, this oversupply also makes some designers confused and makes them forget about the actual purpose of designing and the supportive needs. Consequently, many tools are still designed or formed based on historical recognition and knowledge. For example the form of a wooden spoon is literally copied in plastic whereas plastic is a different material and can be designed in a different way. So some designers may even forget about the impact of new materials. When giving attention to design for all, tools and environments do contribute to an innovative evolution. Each design decision has a reason. Consequently these examples support more the behavior and primary needs and give users a positive and good experience.

From a medical design approach towards an inclusive cultural approach

Environments and tools show that design expertise offers designers the possibility to make products and environments more usable and inclusive for all. Inclusion transcends accessibility and embraces elegance and positive experiences. In the context of disability, the human needs for food preparation are often limited. People rely on technical aids and requirements that may support the act of preparation and independence. These aids often focus on the support of behavior and elimination of the disability because these tools are designed from a medical perspective in order to let people adapt themselves to the environment and products. This approach fits in a medical model [1] because although these technical aids may serve food preparation, they do not aspire the positive

experiences of the task nor do they innovate. In contrast designing for all is a design strategy that fits in a cultural model [1,2] that considers disability as a form of expertise and diversity that can be involved into the design process. The act of considering a diversity of users and imaging this diversity when designing a cooking tool offers more flexible and innovative solutions than focus put on the artefact itself. This way the end result may give attention to the needs as performed or explained.

Designing with empathy

This aspect of empathy and affection is often neglected or forgotten in a design process as focus is mostly put on the practical physical needs. Nevertheless, if a design solution contributes to both physical accessibility as well as the affective part -more precisely the mental, social and cultural inclusion- the product will be experienced in a more positive way. What is often forgotten is that the affection with a product, service or environment already starts when associations are made. For example, in Belgium people with a disability are redirected to health insurance companies to buy their specific cooking products. Consequently, the relation with the product already starts with a more negative bias as the pleasure of buying a useful kitchen tool is linked with a medical stigma. These medical shops are often literally placed next to the insurance office. So the experience of shopping in a natural environment is not present.

This explains why both actual use and experience of the cooking tool as well as the associations of the product with its purchase or obtain will contribute to the whole cooking experience. Besides in the context of disability reintegration Belgians with a disability can

rely on support of occupational therapists for workshops and trainings in cooking. In these workshops people learn how they can cook their own dish when dealing with a handicap. The trainings are organized for people with a disability and try to help people in cooking a descend meal. These training sessions are mostly held in medical environments. Although these sessions are very useful and important to stimulate the reintegration of people in daily life, the environment does not associate positive experiences. A medical environment is not associated with pleasure or fun. On the contrary it refers to sickness. So for people with disabilities this association with the context of its purchase detracts from the cooking experience as a socio-cultural life experience. Based on these socio-cultural impact factors on the total cooking experience, we wanted to show people with disabilities that cooking can be fun and it can give you energy as long as you can use the right tools in a positive environment. By means of cooking workshops at the UD living lab in Hasselt we sensitized people with several disabilities in cooking an Italian meal by using cooking tools and a cooking environment that can be labelled as DfA.

Methodology

To show how to support people living more independently throughout the whole lifecycle and



Fig. 1 UD living lab Hasselt

to create inclusive environments for all we renovated an old porter's lodge in a typical Belgian townhouse typology dated 1931 in the city center of Hasselt. It was a collaboration between Hasselt University (Faculty of Architecture and arts), PXL University College (Department of Healthcare) and the Accessibility office TGB in Hasselt (Fig 1). Because it is often remarked that designers, clients, users, policy makers and constructors lack practical and applicable knowledge on creating inclusive environments and in order to raise the general awareness this DfA inclusive living lab was built. EFRO approved funding hence the project could start in real time. The lab serves as a place to conduct research, demonstrate and give advice to people on "Design for all". The main ambitions of the lab are: demonstration, conducting research and offering information on the added values of *Universal Designing* or *Design for All*. In addition to the daily advices and demonstration of the house the idea arose to organize cooking workshops for people with and without a disability. These workshops would give an alternative and more positive approach for cooking. Indeed when the act of cooking has serious limitations and restrictions for people, both physically as well as mentally, they often experience cooking as a disabling situation. But in a supportive context and with the right sphere and tools, the experience will be different. By means of cooking workshops we could show the possibilities of certain cooking tools as in a design for all context. The lab houses two dwelling units each with their own kitchen. Each kitchen is designed based on the expertise and participation of people with a disability during the design process. The kitchen at ground level has an adjustable kitchen dresser and adjustable cupboards. This way children, tall people, people in a wheelchair, little people, people who like to sit at the kitchen

dresser while cooking, etc. can easily use the cupboards and dresser without using a ladder or without the need to stand up or bend themselves in extreme uncomfortable positions. Attention is given to sufficient lighting above the cooking fire. Based on people's behaviour it is also more logical to put the plates on a par. However, most systems group these hot plates in a square of four plates. In this situation you can easily burn yourself while stirring in the rear bowl when the first pot is heating for boiling water. In both kitchens at the lab the cooking plates are placed on a par. For all the participants that contributed during the design process, this was a right way to do. It is remarkable that for many firms the main circulation is still a 4 square cooking plate. Looking at the evolution of a cooking fire we notice enormous steps in the preparation of food (Fig.2).



Fig. 2 Visual Representation of historic evolution in cooking fire



Fig. 3 Fridge with drawers

A wood fire was until the Victorian period the most common way to heat and prepare food. First people prepared food outside but as soon as the fireplace was the primary heating system it was used in the kitchen to cook. The use of new energy more precisely carbon made engineers make a real cooker. The use of gas as a heating system made the cooker more flexible and resulted in four burners that needed to be as close as possible to the gas main. When electric fire was a fact, the position of the plates stayed the same although the gas cylinder disappeared as well as the gas main and the danger for leaks. Redesigning this cooking fire for all with the help of people with a disability made us think about the positioning of the plates and questioned the need of its position. Similarly many choices and

decisions were made in the design of the kitchen based on a design for all attitude. The oven has a door that fits under and may disappear when open. Consequently it is more safe to pick out the food without burning yourself. One of the fridges is designed with drawers what makes an overview much more easy for seeing as well as non seeing people (Fig. 3). The kitchen is equipped with the latest products and tools screened on a Design for all value by user-experts and DfA-experts. Besides that huge attention is given to the affordability of products and the designed environment as this also contributes to an inclusive attitude for poor people. On March 25th 2015 we hosted the first cooking workshop together with two students in occupational therapy and the coordinator of the UD living lab (Fig.4). Five people with an impairment were invited for the cooking workshop. In advance we



Fig. 4 First Cooking Workshop in UD living lab



Fig. 6 anti-slip mat



Fig. 5 garnish tools

prepared a road map with the recipes and the exact steps for the entree, main plate and dessert. Each recipe had several techniques to be tested. For example, one person had difficulties to spoon her kiwi but with the help of a garnish tool it was possible thanks to the sharp edges (Fig. 5). Another participant normally cannot hold a pot while stirring but thanks to an anti slip mat it was possible and she could work independently (Fig. 6). Several aids for pots and pans make cooking much easier. For example a colander that fits a pot (Fig. 7). All participants appreciated the tools with anti slip and rubber to cut and peel vegetables. For one of the participants the apple peeler was a much easier way to peel the apple and it gave her a pleasant experience (Fig. 8).

Fresh pasta was knead with a pasta machine and even people with arm strength could easily do the job. To separate an egg (the yolk from the protein), a plastic bottle was used and to cut onions a very cheap cutter was used (Fig. 9). The salad spinner works with a very easy push button and is fun to use. Instead of a traditional measuring cup on which you have to read the amount of liquid at the side of the bottle, a measuring cup (Fig. 10) with a measuring tool

inside the cup is used that gives you the opportunity to leave it at the table while measuring the liquid. Finally to present the meal, several dishes with a large edge are used (**Fig.11**). This way people with one arm or hand can easily use the edge to eat but more important is that these dishes are very elegant. The remarkable aspect about this workshop was that people could work and cook in a very fluent way as if they have did it their whole life.



Fig. 7 colander



Fig.8 apple peeler



Fig. 9 onion cutter



Fig. 10 measuring cup

The environment proved its inclusive character and the tools were judged as very supportive. Moreover, people also liked the fact that these tools could be bought at ordinary shops in town or even at IKEA. While using



Fig.11 dishes with edge

the kitchen tools and kitchen, participants also gave feedback on the DfA-values. Ideas for future research and investigations are the creation of fixation techniques for pots on a cooking plate and a cooking fire that meets the needs of people who are visually impaired. This cooker has only a red digital display but the red colour is very hard to read. A green colour would perhaps be more suitable or maybe the whole idea of signalization can be redesigned? Another example related to cooking tools is the design of the wooden spoon. The handgrip of this spoon is considered to be too short and it would be better to have also an exemplar with a longer handgrip.

Discussion

The UD Living Lab shows that need for personal assistance can be reduced to a minimum when giving attention to a supportive environment and products. The cooking workshops showed that the DfA kitchen supports the cooks in an elegant and pleasant way. Besides that the products are usable for a diversity of people and it is appreciated that they can be bought at several points separated from a medical context. Moreover, it is affordable design. By means of Design for all the dream of Le Corbusier to bring design and architecture closer to the people is after one century becoming a reality. Design is no longer only affordable for few people but the potentials of design are more and more recognized by industry, users and designers. The attention given to the affective component in design is still an underestimated value. At the UD living lab we are still stretching the fit and currently new workshops are taking place. Each time a different focus is chosen. Indeed designing with empathy and attention for elegance in the food experience shows a designer's "taste".

Acknowledgements

The authors would like to thank all the participants of the workshop, the UD living lab coordinator and Erwin Vanroye for sharing their time and insights. The cooking workshops were supported by VZW Fokus op Emancipatie (an organisation that puts focus on the reintegration of people in daily life) and vzw Mané (organisation that supports professional care for adults).

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