

Participatory approach for the development and implementation of a service of “Smart homes for independent living experiences”

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Background

This fact-sheet focuses on the case study realized by the USL Bologna and Emilia-Romagna’s Center for Assistive Technology of Corte Roncati, aimed at developing and implementing a service of “Smart homes for independent living experiences¹” through a participatory approach.

The case study was aimed to promote living experiences in apartments through innovative activities characterized by means for the development of personal autonomy addressed to young adults and adults with disabilities.

The apartments used for the experimentation of the service are “ambient assisted living”², with facilitating aids, accessibility solutions and assistive technology, as well as an environment with green areas located in the city centre of Bologna.

The experimentation was carried out over nine weekends, from February to December 2013. The main activities planned for the development of the service included:

- Active role of the group of participants in the weekend of autonomy for the development and implementation of the service.
- Everyday and practical activities inside the apartments for the development of skills and competencies aimed at achieving more autonomy, in particular away from their familiar surroundings, with the adequate support of two professional educators.
- Activities outside the apartments in the external environment for the development of autonomy in an urban setting.

Activity report

The participatory method of the Living Lab was adopted in order to enable an effective participation and to foster the inclusion in the process of developing and implementation of the service. Before, during and after the analysis many observations were realized during meetings and informal conversations that took place with all the participants involved in the experimentation

Three levels of analysis were taken into account:

- **Micro:** the focus was on psychological aspects, either for the group of participants or for the professional educators involved in the weekends of autonomy.

¹ The term used to nominate the service “Smart homes for independent living experiences”, indicates apartments provided with home automation and assistive technology.

² See the EU Ambient Assisted Living Joint Programme, available at: <http://www.aal-europe.eu/>

- **Meso:** the analysis considered the perception of the service, by the group of participants, the educators and the other professionals involved in the experimentation.
- **Macro:** involvement of network's institution, roles and responsibilities were investigated.

The case study and the research methodology followed the logic of the Living Lab method, adding the value from the direct involvement of the group of participants. The participants became co-designers and co-creators of the service, providing ideas, suggesting solutions, and giving feedback (participatory-action-research approach). The monitoring phase was recorded throughout the whole experimentation, using the following tools:

- Feedback collected through coordination and Living Lab meetings;
- The disabilities of the arm, shoulder and hand (DASH)³ questionnaire, and the instrument IPPA (Individual Prioritised Problems Assessment), for outcome analysis in occupational rehabilitation.
- Diary of the experience, written and used by the group of participants to report problems and needs, suggest possible solutions and ideas;
- Interviews and focus groups with all the participants.

Conclusions

The Living Lab approach has influenced the outcomes of the experimentation in a positive way as reported in the interviews and focus groups realized. Strengths and weaknesses of the experimentation have indeed influenced and have been influenced by the kind of participants' involvement.

Concerning the strengths: the experimentation carried out differs from others experiences realized within types of occupational therapy or physiotherapy. While these only have purpose related to functional assessment and rehabilitation, the experimentation observed has an "inclusive educational aim" (without excluding other aims to the rehabilitation). The social-health care context in general - if not always - lacks this aim. In this case study the professionals involved assumed a maieutic role in supporting and encouraging the independence of the group of participants. In addition the participants contributed not as "testers or users", but rather as co-creators of a service. This aspect allowed a rise in awareness and better understanding of what can be achieved with aids and supports, greater autonomy and ultimately increased self-determination and self-esteem. In this case the inclusive educational aim has influenced and benefited all persons involved, through the realization of a learning environment characterized by mutual collaboration, sharing and participation; creating a sort of virtuous spiralling cycle.

Weaknesses were related to organizational bonds that often did not allow for practicing innovative methods of participation – such as the Living Lab. In this case it has provided the possibility of a new window of cultural horizons. Characterized by greater participation and involvement in the definition of services, shifting from a situation of "customer satisfaction" to new one of "person participation".

The high number of institutions involved⁴ in the development and implementation of the service caused a certain level of complexity in the coordination and management of resources, spaces and communications. The lesson learned is that in order to encourage other similar experiences of participation, cultural changes are necessary in organizations, including the processes and practices of the institutions involved.

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³ Available at: http://www.dash.iwh.on.ca/system/files/dash_questionnaire_2010.pdf

⁴ USL Bologna, Emilia-Romagna's Center for Assistive Technology of Corte Roncati, District of Porretta Terme, ASC INSIEME, AIAS Bologna Onlus, Passo Passo Association and Cooperative Libertas.