

Exploring opportunities for the development of innovative projects in gerontechnology: A design education experience

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Purpose Population aging is a global process that demands strategies and actions aimed at promoting means for independence, social participation, and quality of life. Despite important technological advances and their contributions through products, systems, and environments developed with a focus on the older population, there are still numerous demands for the design and successful implementation of assistive solutions in gerontechnology. Fostering innovation with a focus on aging is, therefore, not only necessary but also strategic considering the potential that the silver economy has and will represent in the global market. Therefore, it is important that the training of students from areas most directly related to development and innovation considers the demands and opportunities that the global scenario related to aging offers. This study aims to report an experience in design education based on a collaboration between two higher education institutions in Brazil (Sao Paulo State University – UNESP) and Argentina (Universidad Nacional del Litoral – UNL). **Method** The collaboration was developed from two joint disciplines: Inclusive Design (UNESP) and Ergonomics (UNL). The students worked in groups of, on average, 5 members, composed of students from both institutions, and developed projects based on project demands raised in the material on healthy aging from the Organización Panamericana de la Salud (Anon, 2020). As an international collaborative design project initiative, the groups of students carried out visits to centers and institutions that support elderly people in Brazil and Argentina, seeking to identify common demands and opportunities. The collaboration between the disciplines was carried out over a full academic semester and resulted in twelve conceptual design projects developed jointly by students from both institutions. **Results and Discussion** The main categories of solutions developed by the students' groups were related to positioning and transportation and transfer assistance (4), feeding assistance (3), bathing assistance (1), communication (smartphone, 1), dexterity and cognition training (1), physical training (1) and memoir (1). It can be observed that independence in basic activities of daily living was the main objective of the projects developed by the groups, with emphasis on mobility and feeding, which suggests that these may be problems experienced by many elderly people (Desai et al., 2001). Furthermore, the analysis of the solutions proposed by the group indicates that, when developing the project, they considered meeting the needs of users with greater difficulties, an aspect common to inclusive design approaches (Yelding, 2003), as well as ergonomic (anthropometric) parameters for sizing the project. It is therefore concluded that the disciplines of inclusive design and ergonomics have the potential for application in gerontechnology projects, as they provide means for an analysis and development approach focused on the needs of users with greater difficulties. Finally, it is concluded that the experience described here of teaching design based on international collaboration within South America between UNESP and UNL made it possible to broaden the understanding of demands and opportunities for design in the context of gerontechnology.

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