



## **Experiences and Sustainable Practices with the Elderly**

**Maria do Carmo Duarte Freitas**

*Federal University of Paraná, Department of Information Science and Information Management, Curitiba, Brazil - [mcf@ufpr.br](mailto:mcf@ufpr.br)*

**Rafaela Wille de Aguiar**

*Federal University of Paraná, Department of Information Science and Information Management, Curitiba, Brazil - [rafaela.wille@gmail.com](mailto:rafaela.wille@gmail.com) – CNPq Scholarship*

**Joana Gusmão Lemos**

*Federal University of Paraná, Department of Information Science and Information Management, Curitiba, Brazil - [joanalemos@ufpr.br](mailto:joanalemos@ufpr.br)*

**Murilo Kenji Cardoso**

*Federal University of Paraná, Department of Information Science and Information Management, Curitiba, Brazil - [murilokenji@gmail.com](mailto:murilokenji@gmail.com) – CNPq Scholarship*

**Rodrigo Eduardo Botelho-Francisco**

*Federal University of Paraná, Department of Information Science and Information Management, Curitiba, Brazil - [rodrigobotelho@ufpr.br](mailto:rodrigobotelho@ufpr.br)*

**Daniel Silva Paixão**

*Federal University of Paraná, Department of Information Science and Information Management, Curitiba, Brazil - [danielsilvapaixao@gmail.com](mailto:danielsilvapaixao@gmail.com) – CNPq Scholarship*

**ABSTRACT:** This article describes important actions resulting from a partnership between three extension projects of Federal University of Paraná: Open University of Maturity, Green Map of Curitiba and Digital Media Applied to Education. That partnership seeks social valuing of the elderly. The method used consists of six steps: raise awareness of the sustainability issue, encouraging the elderly to participate in the learning process, as well as to reflect and to exchange experiences and sustainable practices; stimulate thinking with the use of iconographic materials; mobilize ideas with maps and icons and invite the students to map locals that refers to life quality for them; experience, beginning to discuss participants perception about the mapped locations; review the selected icons to represent positive environmental or negative aspects of the mapped areas; and perform challenges, when the participants propose behavior changes and recognize how they can exceed the proposed challenge. Besides that, the participants could discuss and realize how the project contributed to awareness process of their social environment.

**Keywords** Sustainability, Green Map of Curitiba, Open University of Maturity.

## 1. INTRODUCTION

There is a growing necessity for more discussions and lead the problems and preoccupations of scientists and environmentalists about planet's preservation. Both the child and the adult should learn about environmental education, which explains the importance of studies on the factors that influence the perception of the subject in society.

The aging population is seen throughout the contemporary world and requires behavioral and cultural changes. To grow old is often associated with decreased quality of life, what as a challenge for the individual, society and government, in order to acquire knowledge and conditions for life extension.

This article results of partner of three Project extensions in University Federal of Paraná (UFPR): Open University's of Maturity (UAM) Project, Green Map Project's and Digital Media Applied to Education Project. In this scope, many acts are conducted by Science, Information and Technology Search Group.

## 2. THE PROJECTS

The Green Map began in 1992, in New York/EUA as a map to instigate the interest of local residents and tourists about sustainability and make it possible to them to know significant places of cultural and environmental importance within the city. Was created by Wendy Brawer and published by his ecodesign enterprise "Modern World Design". Then, raised an idea to develop a collaborative system, the Green Map System (created in 1995), which has the "the purpose to guide the society to realize the geographical space where it [the society] lives and it [the geographical space] relationship to sustainability" (Tavares, 2015, s.p., translated by us).

The program spread notion of sustainable future through building maps, activities in which community participates sharing their perceptions and impressions about green areas e his location in social space, beyond the social, cultural and civic knowledge. The Green Maps can be created in limited or opened groups to third-party collaboration - named Open Green Maps. Both the production process and maps produced, it has helped to strengthening local and global sustainability networks, reinforce the necessity of healthy and ecologic choices and assist in the divulgation and expansion of successful initiatives to more communities (Think... 2016).

Recent data shows that there are 500 Green Maps published and 325 Opened Green Maps, such as hundreds of made in workshops and classes/classrooms (presented in the Project activities' reports), embracing more than 845 cities, counties and villages in 65 countries.

In 2009, GP-CIT, along with the Department of Information Science and Information Management of the Federal University of Paraná, has hired the Green Map's idealizer, Wendy Brawer, to bring he project to Curitiba/PR, in Brazil. During the Information Management's First Journey, the event's guests and participants cooperated to the elaboration of the Curitiba's Green Map (Fig.1) in a area which was specially made for this propose (Freitas, 2015).



Figure 1. Curitiba's Green Map. Source: Curitiba's Green Map webpage, 2016

This project resulted in workshops, presentations and communications of the works and lots of events, such as SuGestão 2009, the 8<sup>o</sup> UFPR's Extension and Culture Meeting (ENEC), the International Conference of Education and Sustainable Development (EDS,2010), apart from workshops with the UFPR's architecture and urbanism students (Freitas, 2015).

UAM, on the other hand, is a project from UFPR's extension whose target-public are people above 55 years old. It offers, to the elders, the opportunity of participating of numerous activities which promotes life quality, cultural and social development, reception and the behavior changes about lots of topics, such as: Digital Inclusion, Elders' Rights, Elders' Health, Corporal Activities, Environment, Gerontology, Art and Culture (Universidade... 2016) (Fig.2).



Figure 2. 1<sup>st</sup> UAM class, happened in 2013, about Technology for digital inclusion. Source: Own Archives, 2013

The Digital Medias Applied to Education Project, on the other hand, is made by GP-CIT with the purpose of promoting digital and technological inclusion to the population, through workshops and training activities, besides the production of didactic material. (Paixão, 2015) (Fig.3). The partnership between these two projects contributed to improve its participants' life quality and sociocultural development.



Figure 3. 1<sup>st</sup> UAM class, happened in 2013, about Green Map Project. Source: Own Archives, 2013

### 3. SUSTAINABILITY AND QUALITY OF LIFE

Sustainability is a term that comes from Latin *sustinere*, and means to keep alive or defend. Coral (2002) presents the term relating it to the search of economics environmental and social viability. His contribution starts with the structuring of information, needed for the diagnostic achievement, as well as the elaboration of sustainable strategies and tool selection, appropriated for their implementation (Frame 1).

SUSTENTABILIDADE		
ECONÔMICA	AMBIENTAL	SOCIAL
Competitividade	Tecnologias limpas	Responsabilidade social
Qualidade e custo	Reciclagem	Recursos humanos
Foco	Utilização sustentável de recursos naturais	Projetos de cunho social
Mercado	Atendimento à legislação	Auxílio ao crescimento da comunidade
Estratégias de negócio	Tratamento de resíduos e efluentes	
	Produtos ecologicamente corretos	
	Impactos ambientais	

Frame 1. Sustainability model. Source: Coral, 2002

The sustainability model (Coral, 2002) helps on the analytics of the projects inserting them on a social sustainability dimension. The actions disposed in this classification have social responsibility nature and involves students and teachers from different courses, with a way to help the growth of involved community, collaborating to execute and propagate of ideas and sustainable behaviors. In Green Map Project, the information's theme are quickly produced, diffused and applied in the students' formation, as well as transferred to the old-aged in the UAM project. Learn to learn, learn to understand and learn to act by yourself became indispensable capabilities for actions that involve the introduction of sustainability themes in the social environment.

Quality of life is a dynamic concept that covers many areas of knowledge and includes the human relation with the environment and the different needs and perception of each person, being quality of life composed as much positive relations and experiences as negatives ones. Alonso, Sánchez and Martínez (2009) comment that the World Health Organization (WHO) defines quality of life as

[...] individuals perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. (WHOQOL Group, 1997).

The quality of life is also related with the emotional, physic and material welfare, involving interpersonal relations, personal development and social inclusion. (Schalock et al. s.d. apud Alonso, et al. 2009)

The WHO (Organización Mundial de la Salud, s.d.) says that over the years there has been a significant increase in the number of the elderly, which can be seen in Brazil by comparing the figures submitted by the Censuses of 2000 and 2010 (IBGE, 2000/2010): There was a growth of approximately 41% in the number of the elderly. This increase raises questions as: aging is being accompanied by an appropriate degree of quality of life according to factors such as social inequality and break of paradigms about the elderly's role in society?

To seek answers to questions like this, we understand that higher education institutions are responsible for presenting and foster discussions about sustainability, in order to alleviate the lack of public policies that discuss the issue associating it with quality of life, in particular the elderly. Although there is in Brazil Law No. 8,842, of January 4, 1994, which is a National Policy for the Elderly with standards to ensure social rights of the elderly by creating conditions to promote their autonomy, integration and effective participation in society (Articles 1 and 2), it is remarkable the lack of effective participation of society and public agencies to fulfill this law.

The UFPR in its projects, aligns with the National Elderly Plan to support and promote longevity with quality of life, seeking to offer ways for aging is accompanied and understood by the elderly themselves. One of the projects that are explicitly aligned in this case is itself Open University of Maturity by forming groups of seniors that allow building relationships and influence the mobility of the elderly among the places where the actions are carried out. People who do not leave home are more prone to isolation, depression and a higher incidence of mobility issues. (Organización Mundial de la Salud, s.d.)

Seeking to promote the participation of different sectors and courses of UFPR, awareness of directly and indirectly involved with the actions and deepening the questions on the subject, it responds to the extension principles (O que... 2016) which are the generation impact and social transformation, the indivisibility of teaching, research and extension, interdisciplinarity and inter-professionalism, understanding the social role of extension and the impact on the training of students.

#### **4. METHODOLOGY**

The partnership between the projects is now on its fourth edition and takes place every year always in the months of March, April and May. It began in 2013 and its latest edition took place this year, 2016. The activities consist of actions research and workshops focused on digital inclusion and dissemination of the Green Map's project.

The set of activities also aims at the training of monitors and instructors students, testing material developed by them and approach's and teaching-learning's techniques. All



activities take place in the computer lab on campus UFPR's Botanical Garden, which provides all the physical infrastructure and equipment.

It is used as educational strategies (Frame 2) action research, classes, and workshops with participation through dialogue between teachers, seniors, students, instructors and monitors involved in the process, developing dynamics distributed in 12 meetings of 3 hours duration each.

Frame 2. Educational strategy for digital inclusion at UAM Green Map project. Source: Authors, 2016

Educational strategies	Responsibles	Target audience	Theme
Action research	GP-CIT	UAM participants	Know the profile and the reality of the participants
Classes	GP-CIT and volunteers		The technology in the life of the elderly
Workshops	GP-CIT and volunteers		Use of computers, Office®, internet, Facebook®, etc.
Workshop	GP-CIT and volunteers		Green Map - SEMEAR

Since 2013, the Digital Inclusion theme is worked on the project by members of the GP-CIT and volunteers. Therefore, materials were developed in the form of slides and printed pocket booklets distributed to the students and serve as a reference source to participants (Fig. 4).



Figure 4. Pocket booklets technology for Digital inclusion. Source: Own Archives.

One of the classes' modules is dedicated to a workshop with the elderly, when it is explained what is Green Map Project and its importance is emphasized. It aims to influence the participants to think critically about the regions where they live. The method used in this workshop consists of six steps:

- Raising awareness on the sustainability issue - action that shows inter and transdisciplinary character theme making the elderly feel at ease to actively participate in the learning process, besides it allows them to reflect and exchange experiences on sustainable practices;

- Stimulate thinking with use of iconographic material (Fig. 5) and their descriptions, pre-established in the project;



Figure 5. Activity with icons - Green Map Project. Source: Own Archives, 2016.

- Mobilize ideas with maps (Fig. 6) and icons - participants are asked to map their living places;



Figure 6. Presentation of Green Map Project's maps. Source: Own Archives, 2016.

- Try it - stimulates the discussion and perception of places that refer to the quality of life for each participant (squares, parks, bike paths, etc.);
- Evaluate - leads to discussions about the closure of the locations listed by participants that presented the drawings to explain the selected icons to represent the positive environmental aspects or negative existing space mapped by them ; and
- Perform challenges - encourage each participant to create behavior change proposals. The purpose is the recognition of their contribution to the educational process on the space where they live. In Curitiba, this step is in charge of the UFPR team. Once verified, the information is entered in the site of the Green Map© in the Curitiba's Green Map.

The action verbs of each step, when in Portuguese, form the SEMEAR word (sow in English) which symbolically represents a commitment of project participants to act as seeders and disseminators of the Green Map and care with nature in the pursuit of community quality of life and is a way of teaching-learning which facilitates the involvement of students with the technological and cultural changes taking place in its surroundings (Freitas, 2011). This method was developed by Neolabor a management company of Human Resources located in Florianopolis in Santa Catarina/Brazil.

## 5. RESULTS

The partnership between the projects and actions carried out as lectures and trainings are essential to the continuity of them because they help in spreading this partnership to both the domestic population the Federal University as the foreign population, arousing the interest of the public and enabling new entrants to take advantage of environment created by classes.

Thus, it appears as one of the results, the fact that not only the elderly as students, but also teachers, monitors, organizers and observers are made aware of the social importance of preserving nature and the commitment to promote environmental awareness and sustainability and at the same time they can interact with each other ensuring that people from different social situations, life experiences and ages.

And another result to be quoted, perhaps more tangible, it is a graduate of four groups of elderly (2013-2016) in the Open Maturity University that were presented and made aware of the actions of the Green Map and receiving capabilities for digital inclusion by members and volunteers of the project Digital Media Applied to Education.

## 6. CONCLUSION

This research enabled to infer that education strategies focused on the quality of life of the elderly are essential when a proposal to change the social sustainability paradigm exists. The importance of the actions carried out in the projects described herein is revealed in the valuation issues not always considered common sense, but that show interesting for the participants.

Scholars who participated in the project say the experience gives opportunity to them in addition to teaching, the learning. On the one hand work explaining the use of computational tools to the elderly, on the other, to exchange experiences, share knowledge and knowledge about the life experience and the challenges faced on a daily basis. The action allows the contact with real life, according to the reports of the elderly in their speech. They praise the project, not only for acquired knowledge but the opportunity to experience it, be useful and to produce something which translates as appreciation of their work. You can see the impact of the Project Green Map in the following statements made by some of the elderly (verbal information acquired from manual transcription excerpts from interviews with students of 2016 class UAM):

- "It's something that is important and we sometimes don't take it very seriously." – Interviewed A (translated by us);
- "I think it teaches people to think, because usually people go through things and do not realize." - Interviewed C (translated by us);

She said (verbal information) that she wants to publicize the project:

- "Near my home there's a little square that has fitness equipment. People of my building and I gather there to do gymnastics... then I will join them too [in the project]." - Interviewed A (translated by us);



Through conversations with them also could see the ways they became aware of the Open University of Maturity: through dissemination at the university itself, through conversations with family members, among others. About the reasons that led them to participate in the project (oral information):

- "I decided to participate to interact, go out , learn, get more information and always be active." - Interviewed B (translated by us);
- "To have more information. To have contact with people, interacting." - Interviewed C (translated by us);
- "Because I was more staying at home. It is for information, to update and other things that we end up staying at home and getting kind of forgetting things." - Interviewed D (translated by us);

The elderly, mostly received the guidelines with satisfaction (Fig . 7-8 ) and returned with stories about their experiences and showing their affection for the teachers.



Figure 7. 4<sup>th</sup> UAM class, about Green Map Project. Source: Own Archives, 2016.



Figure 8. 4<sup>th</sup> UAM class, about Green Map Project. Source: Own Archives, 2016.

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