

Alternative ways for attracting teenagers to protected areas: intergenerational learning and location based games

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Introduction

Nowadays it is evident how much youth are keen and incredibly familiar to Information and Communication Technologies (ICT) which are used for different purposes like social networks, school researches, playing games, and how mobile technology is the most affordable and multitasking and of ordinary use in all generations. Therefore, smartphones and tablets can be the tools for combining two generations and make them working together.

Intergenerational learning, which describes the way that people of all ages can learn together and from each other (www.enilnet.eu), fosters reciprocal learning relationships between different generations and helps to develop social capital and social cohesion in our ageing societies (Rogers and Taylor, 1997)

Therefore, the combination of pupils skills on ICT with elders' knowledge proves a mutual knowledge transfer between generations by which, on one hand younger generations can benefit from elders' mentoring (Morrow & Styles, 1995), on the other hand, mentoring experiences allow opportunities for older adults to renew positive emotions and reinforce meaning in their lives (Larkin et al. 2005).

Moreover, in recent years, volunteering has been increasing, encouraged by the UN policy: 2011 was declared the 2nd European year of Volunteering and the EU shows strong interest especially for its contribution to social cohesion, building European identity and values.

Key motives for participating in the nature conservation volunteering generally are firstly 'helping the environment', then 'improving areas that volunteers use for their own recreation', 'expressing their values', 'learning about the natural environment' and 'socializing with people with similar interests' (Brett Bruyere and Silas Rappe, 2007) and 'learning and contact with nature' (Liarakou et al. 2011).

The technological and eco-psychological considerations are the pillars of Involen project (Intergenerational Learning for Nature Conservation Volunteers), a European project funded by Lifelong Learning Programme (GRUNDTVIG Multilateral Projects).

Location Based Games (LBG) for mobile devices are applications by which players have to solve quests to move from place to place and complete the game. LBG can be also played in a protected area unless the internet coverage is weak. The combination of intergenerational learning, nature conservation and LBG can reach smartly several purposes: *i.* raising the awareness for active ageing, posing *the challenge to politicians and stakeholders to improve opportunities for active ageing in general and for living independently, acting in areas as diverse as adult learning, volunteering, IT service* (Bird, 2007), *ii.* raising the interest of pupils toward nature and environmental volunteering, *iii.* the valorisation of the area giving visitors new tools to discover it

and enhancing the educational offer of natural parks delivering the innovative training course on LBG and intergenerational learning to schools, adults, nature volunteers, environmental guides etc. in order to finally encourage *iv.* nature conservation volunteering.

Involen model

Involen targets youth and elders in 5 European countries (Italy, Greece, France, Hungary and Slovenia) with motivation and passion for nature.

In Italy, Involen has been piloted for one year (April 2013 - May 2014) in Livorno town, a big town very close to the Provincial Park of Monti Livornesi. This natural park is about 3000 hectares wide and thanks to a group of local associations (Occhi sulle Colline) is undergoing a participatory valorisation process.

A small and heterogeneous group made by 8 students of the secondary school I.C. Micali, 4 facilitators (WWF staff and teachers), 5 elders and 2 ICT experts, collaborated during about 20 meetings achieving in the end a variety of competences. The learning path was made by six work units, described in table 1, piloted by facilitators and finally evaluated.

	Unit purpose	Methodology
1	Individuation of competence needs about intergenerational learning, issues concerning the protected area and ICT. Plan of the learning path schedule	Questionnaires, meetings for set up the calendar
2	Presentation of an example of LBG by ICT expert	Presentation
3	Collection of stories, legends, tales by elders about the protected area	Interviews
4	Selection of stories and information for the story and its storyboard	Group work
5	Visit to the protected area for volunteering activities and collection of information for the LBG	Field visit and practical activities
6	Development of the LBG (using ARIS)	Group work

Work units in INVOLEN learning path.

The game was developed on ARIS platform (<http://arisgames.org/get-aris/>), a location based game application which allows players to solve quests, get items, have dialogs with characters, etc. in order to move from place to place.

ARIS is open source and has a good FAQ service, useful for users. Moreover, all ARIS games are freely accessible from ARIS App store though they can be played only on Apple devices (iPhones and iPad).

After the collection of stories and information on Monti Livornesi told by seniors, the pilot group invented a story in which, the most famous and representative characters of the area interact with the player and they also created the storyboard: the scenario and the flow of actions. The storyboard was then transformed into LBG through the use of ARIS platform.

Involen methodology was successful for learners: new competences, information on natural and historical aspects of the area, behaviour attitudes were learnt from each other, either seniors and teenagers. Seniors transmitted their knowledge and passion for the environment, photograph, flowers, rare species and conveyed proper attitudes in the nature, but they also learnt how to interact and communicate to pupils and how to do a mobile game.

At the same time, new friendships and a closer intergenerational link was created inside the group. Since seniors and facilitators are members of nature volunteering associations, we expect a successful imprinting on teenagers. If Guiney et al. (2011) demonstrated that nature volunteers feel a connection to nature and this connection began in childhood, we have good feeling that this methodology might seed in pupils a strong interest for nature protection.

To conclude, practical outcomes of Involen model consist in *i.* a reliable methodology for environmental organisations (parks, ONGs etc.) which want to encourage nature conservation volunteering and increase their educational offer to youngsters and elders, and *ii.* the LBG that can be considered an added value for recreational or protected areas with large potentialities in attracting young visitors (but maybe also adults) with amusing and informative tools and for their capacity to guide and distribute visitors in specific trails where the game has to be played.

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