INNOVATIVE EDUCATIONAL OPPORTUNITIES FOR HEALTHY LIFESTYLES??

Full Prof. DDr. Ana Vovk Korže
International Center for Ecoremediation
Faculty of Arts, University Maribor
ana.vovk@um.si

Abstract. A healthy lifestyle is not self-evident, but many times we should learn it. Advertising and media examples are often mis-leading; it is necessary to develop attractive opportunities that enable the broader community education for a healthy lifestyle. Data about bad habits of eating, exercise, and poor psychological state, particularly of young people also force us to this. Therefore, we show in the article selected educational opportunities making an important contribution to change lifestyle. The emphasis is on experiential education, which has a significant impact on increasing awareness and personal responsibility. This method of training has been very successful shown on the learning polygon for self-sufficiency in Dole.

Key words: education, health, young generation, permaculture

INOVATIVNE MOŽNOSTI IZOBRAŽEVANJA ZA ZDRAV NAČIN ŽIVLJENJA

Zdrav način življenja ni samoumeven, ampak se ga je velikokrat treba naučiti. Reklamni in medijski zgledi pogosto zavajajo, zato je potrebno razviti privlačne možnosti, ki omogočajo najširši skupnosti izobraževanje za zdrav način življenja. K temu nas silijo tudi podatki o slabih navadah prehranjevanja, gibanja in slabem psihološkem stanju, predvsem mladih. Zato bomo v prispevku prikazali izbrane možnosti izobraževanja, ki pomembno prispevajo k spremembi načina življenja. Poudarek je na izkustvenem izobraževanju, ki pomembno vpliva na zavedanje in povečuje osebno odgovornost. Tak način izobraževanja se je kot zelo uspešen pokazal na učnem poligonu za samooskrbo v Dolah.

Ključne besede: izobraževanje, zdravje, mlada generacija, permakultura

1. Introduction

According to FAO we could require the current food production to increase by 50% until 2050, whereas there is not enough additional arable land at the disposal (Raman, 2006); it is necessary to deal with the land extremely carefully and efficient production approaches must be used by permaculture (permanent culture, the way of food production with special care for the earth and water) and ecoremediation (taking into account the natural processes in nature). In the middle of the 21st century there will be about 10 billion people in the world for whose current eating habits we do not have enough fertile land and, consequently, food. They already now have the problems with health. Vegetarian food habits require between 700 and 800 m^2 of cultivated land per person, meat-and-dairy food habits need 4000 m^2 (Sage, 2012). In Slovenia we have 858 m^2 of cultivated land per capita, the lowest across the EU (the EU average was 2080 m^2) (Plut, 2012). All this forces us to think about getting a land where we could grow food, regardless of land ownership (even those who have no agricultural land and live in cities). Passive people's attitude toward self-sufficiency can mean even greater deterioration of the situation, for which we are all responsible.

Therefore it is necessary to increase self-sufficiency and to put great responsibility in education that can bring closer this content to everyone (from kindergarten to lifelong learning) and to incorporate it into everyday learning. Self-sufficiency is extremely wide, and is not only the domain of the agricultural profession.

These are the reasons why we in Slovenia in the municipality of Poljčane (Picture 1) created a learning polygon for self-sufficiency based on permaculture, which can be mainly used for young people to learn about food and sustainable ways of living by the experiential method. We established an educational polygon for education on self-sufficient supply. The polygon is located in the village of Dole in the municipality of Poljčane, Slovenia, and covers 1.2 ha. It is intended for the purposes of education on self-sufficient supply, from the level of preschool education to the level of lifelong learning.

Picture 1: Position learning polygon for permaculture by Poljčane (by author)

2. Methodology

The focus of the educational polygon is on identifying the possibilities of using natural resources for self-sufficiency in energy, which is closely related to learning about the soil, humus, organic material, water condition, climatic properties, animals and cooperation with the local community (Picture 2).

Picture 2. Care for the soil is the basic task of a learning polygon (photo: by author)

The aim of the educational polygon for self-sufficient supply is to present the possibilities of an individual's self-sufficiency in view of available resources, and simultaneously to explore new possibilities of an economical relationship towards nature and environment in innovative ways. The educational polygon offers various knowledge contents in the field of permaculture and natural way of living (Permaculture Free Press 2013). The key objective of the education on self-sufficient supply is to connect – through experiential learning – the contents of natural sciences with those of social sciences, which is also connected to health.

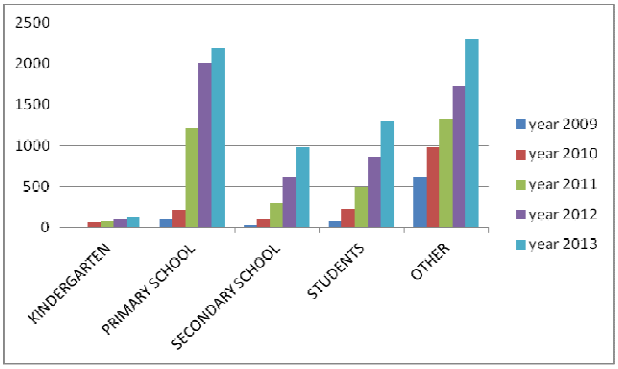
During the preparation of the polygon we developed training modules for all generation levels from kindergarten to faculty and lifelong education to learn about environmental issues (www.ucilnicavnaravi.si):

1. The ecological farm and sustainable development (module: sustainable development).
2. The forest learning path (module: environmental tour guiding).
3. Chemical analysis of water (module: ecological analysis and monitoring).
4. Composting (module: organic waste processing and maintenance of biological and vegetal purifying plants).
5. Wood biomass (module: getting wood biomass).
6. Designing space for a vegetal purifying plant (module: ecosystems, implementation of activities in space and ecoremediation).
7. Natura 2000 (module: sustainable development).
8. Forest decline (module: ecosystems, implementation of activities in space and ecoremediation).
9. Vegetal purifying plant (module: ecosystems, implementation of activities in space and ecoremediation).
10. Herbs in the organic farm (module: sustainable development).
11. Recognize soil and soil analysis (module: ecological analysis and monitoring).
12. Permacultura (module: how to get to own garden).
13. Self-sufficient-supply (module: eco-village as a new style of live).

The educational polygon offers various knowledge contents in the field of permaculture and the natural way of living. The key objective of the education on self-sufficient supply is to connect motivation, innovation, care for environment and health.

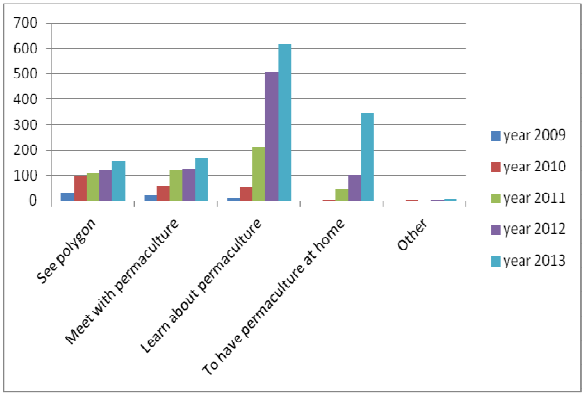
3. The results of the monitoring of visitors in the learning polygon Dole focusing on student population

From June 2009 to June 2013, we collected data about the number of visitors as well as monthly and yearly follow-up with the aim to understand the dynamics of the visit. It is important to emphasize that the polygon is dedicated to research and education, and that it is not a tourist destination, so we did not carry any commercials. During the main season from May to June and September, the interest of the schools to explore on the polygon is great, so we do not use propaganda techniques to attract visitors. The number of target populations over 4 years increased the most in the target group of elementary school, because experiential education has become a compulsory part of the school. It is interesting that different orientations of pupils come to the polygon. Their main objective is to identify sustainable development in practice. Students are from the University of Maribor, University of Ljubljana, College of Velenje and from the University of Primorska. In the second group are members of societies, members of a third university, families, tourists, teachers and heads of tourist organizations and various associations (Graph 1).
In order to monitor the relationships of the student population of permaculture we are having in the educational programs guided interviews. During the implementation of education we recorded motivation for the visit, with the aim to monitor the transfer of knowledge into practice and health.



Graph 1. Visitors' interests on permaculture polygon Dole.

Interestingly, the first great interest was only to see the learning, and now every year one reinforces the desire to learn about the permaculture. In 2012 and 2013, this was the main motive for visiting the learning polygon. 17,1% of students would like to have permaculture at home (Graph 2). Field group of students who expressed interest to have a home permaculture, are being monitored today in order to obtain information, which permaculture arrangements they have created. From the group, which has expressed that they wanted to have a home permaculture (505 people), 46 actually made it at home, which is 9% of the total. Due to the fact that in recent years the interest of those who practice permaculture at home increases (from 2011 to 2012, the interest increased by 47% and in the period between 2012 and 2013 by 20%), we expect a rise of interest).



Graph 2. Practical implementation of permaculture at home

4. Disscusion

Permaculture systems increased self-sufficiency and in recent years established them-selves as an attractive approach to the production of food. Students gain new knowledge by themselves and they assimilate it permanently as they participate in a real environment, which is the object of their learning, and no abstraction is involved (Tal and Maroag 2009). Among our teaching methods, the prevailing ones are observation, comparison, planning, fitting into the environment, evaluation and group work. Only this kind of learning environment enables us to place (Green, 2012) the students into a concrete situation, where they can learn about self-sufficiency from many perspectives. Experiential learning is based on the principles of permaculture and ecoremediation, where students can deal with landscape's interrelationships and mutual dependencies in an experiential manner (Dunphy, Spellman, 2013). The loss of importance of agricultural production, unemployment, emigration of young people and population's ageing, are the most significant of these changes. Inhabitants of the countryside can see the development of rural areas mainly in the promotion of tourism, development of agro-tourism or rural tourism, and thus in the adequate diversification of activities. This brings about new ways of thinking and behaviour of the rural population (Jakešova, Vaishar, 2012).

5. Conclusions

For the intergenerational transmission of knowledge the permaculture is ideal because the older persons still know the consideration of natural principles, and the ones younger have interest to use this in practice. The second group is also significant potential generation of pensioners, which are still active and can be as permaculture owner again actively involved in society. It is also a recognition that the content of sustainable development in primary school is compulsory, so all students have the opportunity to learn about permaculture as an approach to achieve sustainability.

References

Green, M. (2012), Place, Sustainability and Literacy in Environmental Education: Frameworks for Teaching and Learning. *RIGEO Review of International Geographical Eduction* . Online ISBN: 2146-0353, p. 326-346.

Dunphy, A., Spellman, G. (2009), Geography fieldwork, fieldwork value and learning styles. *International Research in Geographical and Environmental Education* 18:1, 19-28. DOI:10 1080/10382040802591522.

Jakešova, L., Vaishar, A. (2012), Sustainable inner peripheries? A case study of the Olešnice micro-region (Czech Republic). *Moravian Geographical Reports*, Vol. 20, No. 4, p. 13-25.

Plut, D. (2012), Prehranska varnost sveta in Slovenije. *Dela* 38, p. 5-23. Ljubljana.
Raman, S. (2006). *Agricultural sustainability – principles, processes and prospects*. New York: Food products Press, 474 pg.
Tal, T., Morag, O. (2009), *Reflective Practice as a Means for Preparing to Teach Outdoors in an Ecological Garden, Teacher Education*. London: Springer Science, 2009, pp. 242 – 265.
Sage, C., (2012). *Environment and food*. Routledge, 320 pg.
Permaculture Free Presse (2013). Retrieved from: :http://permaculturefreepress.com/?p=401).
Classroom in the nature. Retrieved from www.ucilnicavnaravi.si (12. 2. 2013).