

Chapter 39

Research Learning of the Environmental Subjects in Case of Educational Polygons in Slovenia

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ABSTRACT

The Slovenian education system educates and trains young people under the guidelines of sustainable development, as this will increase responsibility and adherence to the environment and human society, which part we are. With this training, active method learning is emphasized, where students in empirical way in the real world through the experience of life and with use of their senses get the new knowledge. In this chapter, the authors present two learning polygons: a polygon for ecoremediations, and learning ground for permaculture, where students on the basis of experiential learning in real world pursue their learning objectives the field of geography. These are piloting examples of the educational polygons outside schools, and therefore create opportunity for practical application of frontal classroom lessons. Field works can substitute classroom activities and create new way of learning. Research and education work on polygons give possibilities for planning active work in landscape, team work, cooperation, and evaluation.

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INTRODUCTION

Education and learning assume a key role in the realization of sustainable development, where education is aimed at changing lifestyles and values of society, which should be aware of the importance of preserving the environment for our heritage and intergenerational equity. Strategy for the Education and Sustainable Development from the Pre-school to University Level Education (2007) has been a base document for the extensive process in pedagogy, which led to the gradual transformation of the educational system in Slovenia. National curricula have been in process of transformation according to the new Strategy and trends. By the extensive renovation of the educational programs, where the exposed skills and improvements are taken into the consideration Slovenian school systems get better base for the future development of the education for sustainable development and urgently start with the repairing of the old systems. National guidelines for the upbringing in sustainable development aim at strong socio-economic and environmental awareness and the willingness of citizens for personal engagement in the solving of problems (Kolnik, 2010).

So we began to materialize some of the key educational goals of education for sustainable development: to encourage young people's feeling of belonging to the local environment where they live and increase responsibility to the environment.

For the realization of key educational aims use of active teaching methods should be started. As evaluated in the context of the European project Empowering Teachers and Students Motivating and Orienteering - ETIMOS (Reggio, 2006), there have been significant changes recently in the field of active learning methods, since from the simulations, which were conducted in a didactic environment, the focus of activity is now in the real environment where learning is based on experience. In the foreground of the active work in the school experiential education is coming. This

also invokes a higher potential for active learners. Reggio (2006) in the project ETIMOS found that the most effective active methods are following:

- Field visits to help students learn about the situation directly, so it encourages self-initiative;
- Games and simulation techniques to develop the ability to empathize, decentralization, critical thinking, communication and holistic view of the problem exposed by personal feelings and life experiences;
- Group work, which is realized through conversations and activities within the group, showing specific active characteristics, including the personal experiences of students.

Orientation of teaching and learning in a higher level of activity requires that the active participation in class is not taking place only at school, but also in the external environment, where the combination of formal education with non-formal education should be started. Such experiential learning requires the student's activity at work, where in the real situations on the ground, he comes up with new knowledge. With active learning, students increase their motivation to work, because their work passes into the learning and this is increasing their responsibilities and loyalty for the environment. The experiential education also provides an implementation of education for sustainable development, which promotes the need for students to get the ability to become critical-thinking with a comprehensive understanding of many interdisciplinary problems and they can be able to propose solutions for those problems (Kokot Krajnc & all, 2011; Vovk Korže & all, 2011a).

Context

A learning polygon of ecoremediation and learning polygon of permaculture are located in a small village Modraže in the municipality Poljčane

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