Outdoor education in protected areas from viewpoint of geographic education

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Emel (2015) said that outdoor education helps one to develop environmental awareness, attitude, knowledge, time management, social relationship, success motivation, emotion control of people etc. Fletcher (2015) further explored the role of ecotourism in the neoliberalisation of environmental education. Ewert & Sibthorp (2014) identified two branches of outdoor education: environmental education and adventure education. According to them, outdoor adventure education is a variety of teaching and learning activities and experiences that usually involve a close interaction with an outdoor natural setting and contain elements of real and perceived danger or risk in which the outcome, although uncertain, can be influenced by the action of participants and circumstances. Ting & Siew (2014) found that students develop better in their critical thinking skills and science process skills after undergoing an environment-based education. Probably, Gilbertson (2006) did the most complex study of outdoor education (Figure). Outdoor education is irreplaceable method in geographic explorations, but papers which deal with mentioned topic are rare. This research will try to put in focus outdoor education in protected areas from geographic point of view.

Planned and organized terrain observations in protected areas might be connected with outdoor education in geography. Observing the terrain based on written literature is the most effective way of learning. Also, terrain observations provide insight and information on recent changes in the geographic space, which may have a scientific and social importance. One can see changes in geological structure, relief, microclimate characteristics, the hydrological facilities, in soil or plant and animal world. One of the fastest process on the terrain is anthropogenically induced denudation, e.g. cutting forests, on the steep slope, in the time of rains. Earthquake, torrential flows, but also man, easily can break schist or loess rocks. Processes in nature are longer lasting than a visit of pupils, students and others. However, an analysis of the situation can point to their developmental stage. Dissolving the limestone often affects the modification of relief forms size. Relief transformations can be expected or caused by different tectonic and others phenomena triggered by endogenous and exogenous forces. During outdoor education potential landslides can be identified. People are rarely present in protected areas, therefore short stays of scientists and students are precious. Microclimate characteristics cannot be seen during a short stay. But, they can be identified by certain effects that are visible to the living world, primarily on vegetation. Consequences of drought, dominant wind, flood as

well as influence of lakes or seas are visible on terrain. They are one of the best lessons in geography outdoor education. Recording observations in outdoor education can be valuable in terms of control of bounty source, or the regime of watercourses, stagnant water monitoring. The study of plant and animal life is impossible without outdoor education. On this occasion, it is easy to identify ecological problems. Emel and al (2015) recognize that different approaches in environmental education bring about varied outputs such as increasing environmental knowledge level, having favorable environmental attitude, increasing environmental awareness, environmental behavior change, actively participate in solution of environmental problems etc. The experience gained during the outdoor education is more effective than the perception of ideas, which is acquired indoors during description of phenomena, processes, problems. Contemporary technique enabled aids, which are available even in the absence of AC power. Some of them are specially designed for use in geospatial explorations. This has opened up a number of options that can record observations and states. Outdoor education in protected areas has many advantages, but also disadvantages. Nature in protected areas is usually sparsely populated or uninhabited. The presence of population in the protected areas or near it, can be very useful. They represent the best experts, because they live in that teritory. Protected areas practice minimum use of economic and non-economic activity or none at all. Settlements are almost non-existent. Therefore, the natural characteristics of the area are not disturbed and as such are excellent for research. Research can experience problems such as: relief barriers, adverse weather conditions, natural disasters etc. Also, money (for transport, equipment, etc.) is often seen as limiting factor for the organization of outdoor education.

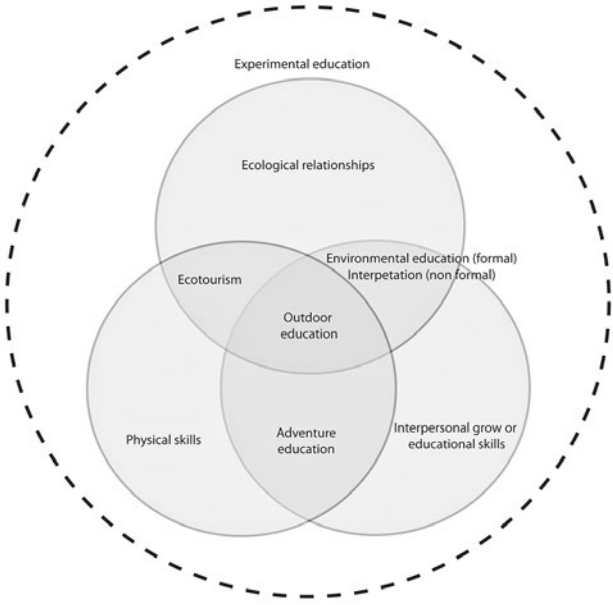

Figure 1. *Gilbertson's model of outdoor education*

Features of outdoor education in protected areas are: short retention, compliance with rules of conduct in order not non-deterioration.Visiting the area and observation phenomenon, process and shape are possible and are organized in larger groups. This way could be described as 'outdoor education for begginers' and it is very important in geographic education at all educational levels. Any research that requires a longer retention in the field should be organized in smaller research groups and it represents 'advanced outdoor education'. The results of such research can have scientific significance, which could prove useful for education in doctoral studies.

Considering outdoor education in geography, according to Gilbertson's model (2006), we can suggest the following conclusions. Term `ecological relationship` refers to causal relationships in nature. It is base of geographical way of thinking. There is explanation for every phenomenon or process in the nature (Figure).

Development of `physical skills` involves obvious activities and learning how to use equipment. Nowadays, for example, Global Positioning System (GPS) is necessary for outdoor education. GPS an accurate worldwide navigational and surveying facility based on the reception of signals from an array of orbiting satellites. `Educational skills` mean knowledge how to find right facts in direct experience. Specialization of these skills has development character and it is directly conditioned by experience. The aim of 'Environmental education' is to acquire knowledge of prevention and salvation of environmental problems. Geographers are competent for environmental education, but they have not used it enough in society. Only 'adventure education' is for enthusiast, because they use perceived risk to enhance and influence learning. In geography, it is most often used in science explorations. Gilbertson's model can be used when checking whether all elements of outdoor education included in the plan.

Emel, O. B. (2015). Some Suggestions for Turkey within the Scope of Outdoor Education Success of New Zealand. *Journal of Turkish Science Education*, 12(3).

Emel, O. B., Ozdilek, H. G., & Yalcin-Ozdilek, S. (2015). The Short Term Effectiveness of an Outdoor Environmental Education on Environmental Awareness and Sensitivity of In-service Teachers. *International Electronic Journal of Environmental Education*, 5(1).

Ewert, A. W., & Sibthorp, J. (2014). *Outdoor adventure education: Foundations, theory, and research*. Human Kinetics.

Fletcher, R. (2015). Nature is a nice place to save but I wouldn't want to live there: environmental education and the ecotourist gaze. *Environmental Education Research*, 21(3), 338-350.

Gilbertson, K. (2006). *Outdoor education: methods and strategies*. Human Kinetics.

Ting, K. L., & Siew, N. M. (2014). Effects of Outdoor School Ground Lessons on Students' Science Process Skills and Scientific Curiosity. *Journal of Education and Learning*, 3(4), 96.