

Abstract

Long-term outdoor education and programs can have positive impact on students' knowledge as well as their attitude and also behavior. On the other hand the effect of short-term programs is questionable. However, these programs are the most important in practice. There are only few studies dealing with the effectiveness of short-term programs on both short-term as well as long-term outcomes of students. Moreover, most of these studies were applied for primary school students.

The aim of this thesis was to compare the short-term and the long-term effectiveness of outdoor education (field trip) with traditional education at the school. The comparison was made on the topic of ecosystems. I particularly wanted to examine the differences between (1) the results of experimental and control group in individual tests, (2) results of all students in subsequent tests as well as (3) in relation to other parameters of students.

There were 102 students from three grammar schools participating on the experiment. On each school there always was one experimental class which was taught in the field, and one control class which was taught by the traditional way at the school. In the outdoor education, students solved specific practical tasks and problems according to worksheets and they were working in groups. As a conclusion of the field trip the students had to make self-presentations. In the traditional education, the main method of teaching was lecturing and dialogue with students accompanied by presentations of thematic pictures. All students were subsequently taught to these ecosystems: rock, riverine woodland, valley of the brook, spring area in the wood, meadow and several forest types. The effectiveness of the education was surveyed by way of 3 subsequent tests: pretest, posttest 1 (written in the following lesson after teaching) and posttest 2 (written with a five months delay). A questionnaire to get supplementary information about students was also a part of these tests.

The knowledge of students of the experimental group and the control one was the same at the beginning of the experiment (pretest). There were also no significant differences in the results of posttest 1 between both groups of students. Therefore we can say that the short-term effect of the outdoor education is the same as the effect of the traditional one. On the other hand the outdoor education is more effective than the traditional one in long-term perspectives. Both kinds of education helped to improve the knowledge of ecosystems of all the students, though within five months all students forgot some of it. The interest in biology as well as in the study of natural history science is one of the most important parameters which influenced the results. In the case of posttest 1 it is also the school grade. The outdoor education can thus have strong effect on knowledge of students, and it should be suitably connected with the traditional one.

Key words: Outdoor education, ecosystems, effectiveness of the education, short-term effect and long-term effect.