

FIELDWORK IN EARTH-SCIENCES: FROM TEACHERS TRAINING TO STUDENTS' EFFECTIVNESS LEARNING

1LEITE. A., 2MARQUES, L., 3FUTURO, A., 4PRAIA, J. and 5REBELO, D. 1,3,4. Oporto University, Portugal; 2. Aveiro University, Portugal; 5. Secondary School of Estarreja, Portugal

As far as outdoors education is concerned, a lack of research and reflection about its effective role in science learning still exists. So, it is understandable to develop an in depth research in this field. The content of this paper has been developed in the context of a research project in which educators and teachers are the participants. Therefore, the framework of the strategies organized and implemented are far away of the model which is traditionally used by secondary school teachers. The designing, implementation and evaluation of innovative didactic materials, related to a particular geological area of Portugal - Jurassic and Tertiary formations- is presented. These materials face the learners both with group and problem-solving activities in the field, which have been previously prepared at the classroom and laboratory. The activity of the designing of these materials was based on an in depth and long discussions among participants - educators and teachers - helping them to reflect about both their own difficulties and experiences. In the following of this step, the designed materials were implemented with learners. The influence of these materials and strategies in the students have been evaluated through a questionnaire with six sections: preparation phase, field trip, summary phase, organization of the trip, usefulness of the field trip and students' attitudes deal with the field trip. The results reveal a positive attitude of the students concerned with the organization of the field trip.*This work has the financial support of the Project 028 – PRAXIS/C/CED/145/96.