



Project Number: 2015-1-IT02-KA201-015133

Progetto 'E-Learning from Nature'

Natura, scienza e non traditional teaching

Castelfiorentino - Italia

31 ottobre 2017

Minutes

Participants

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The focus group took place at IIS 'F. Enriques' in Castelfiorentino (FI), the promoter school of the project 'E-Learning from Nature'. Its topics were adopt new methods and tools based on collaborative and innovative practices to strengthen science education performances at secondary school level; address low achievement in science basic skills through the promotion of problem-based and real life learning scenarios ; implement innovative approaches to science teaching and learning through an aware use of ICT; promote of a learner centred pedagogical approach to science teaching and learning by using innovative learning by teaching experiences.

The participants to the focus group were teachers of primary, secondary and high schools: eighteen teachers from the comprehensive schools of Castelfiorentino and Certaldo, two teachers from the comprehensive school 'Spinelli' of Scandicci (Florence), two teachers from the institute 'Il Pontorno' in Empoli, other teachers coming from high schools in the provinces of Florence and Siena; seven teachers from IIS 'F. Enriques'.

After an introduction and an overview of the project, given by Andrea Conforti, Gennaro Guzzi of IIS 'F. Enriques' reported about the composition and the activities of the Target Group, starting with the selection of the protected areas: the Fucecchio marshes, selected by IIS 'F. Enriques', the Oasis of Arnovecchio selected by IIS 'Fermi - Da Vinci' of Empoli, San Rossore, Migliarino and Massaciuccoli park selected by IT 'Cattaneo' of San Miniato, the Maremma park selected by Liceo 'Rodolico' of Florence, and the Park on the River Elsa selected by Liceo Scientifico 'A. Volta' of Colle Val d'Elsa. He also pointed out how teachers were able to put into practice non traditional teaching methods in problem-based and real life scenarios, especially thanks to the willingness of the students to get actively involved in the activities they were proposed to carry out.

Marco Rustioni, from Liceo 'A. Volta', reported about a particular area called Sentier Elsa, in the area of Colle val d'Elsa, in which the students, guided by experts of Siena University, analysed the water using particular kits and collected data about the variety of insects found in this area. The visit was also useful to know how the river Elsa has had an important role for the town Colle Val d'Elsa through centuries, representing a key source for industry and commerce. Human intervention has aimed to maintain the river as 'healthy' as possible. This can be recognized thanks to testing the waters and also by the presence of many varieties of micro-fauna along its banks.

After showing some samples of e-lessons made by students of the Italian and foreign Target Groups, the focus was shifted on the contents of the Teacher's Guide, which were explained by Andrea Conforti and Alessia Pica, who analysed in particular the possible ways to apply Mathematics to nature, making databases, computing, calculating percentages of the species of birds detected in the natural areas, showing experiments made on the behaviour of mallards with ratios of food equally distributed.

The next part of the guide to be discussed was the variety of ICT which were used. A large part of the people present at the conference agreed about the importance of improving one's knowledge of new technologies, linked with innovative teaching methods, which definitely represents a good opportunity of further learning both for teachers and students.

Methods like CLIL, peer to peer, flipped classroom, cooperative learning are shown in the videos made by students and teachers. They work as a key element not only to demonstrate how alternative activities and methods are being put into practice during the visits to the protected areas, or inside classrooms and



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laboratories, but also to show how wisely and skillfully ICT can be used to achieve what planned and expected in earlier steps.

Concluding, the results of the conference were the achievement of a large share of the aims to involve students in active collaboration, widen their knowledge and improve their skills through the study of nature by adopting innovative methods, new technologies, set in problem based scenarios. The speeches, presentations and explanations were focused on every aspect of the project and aimed to find out the most suitable ways to test its sustainability, by taking into consideration every reply coming from the participants, who showed interest and appreciated the principles, the aims, and all the activities carried out by the schools and institutions which are members of the partnership and those ones which collaborated to achieve the expected results.



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