

Physics Devourers' Morning – Workshop on Goerudio Method

07.04.2015 - Iasi, Romania

Minutes

Participants

The Goerudio workshop called "Physics Devourers' Morning" has been organized by EuroEd in partnership with 2 schools (Vasile Alecsandri High School and Grigore Moisil High School) and 1 university (UAIC, Faculty of Physics). 35 participants were involved (pupils, teachers and students).

Minutes

The aim of the workshop was to introduce to the participants the Goerudio project and objectives, to raise the students interest in physics and science in general by involving them in debates and laboratory activities.

The second main aim of the workshop was to find a solution to the problem raised by teachers – lack of access to laboratories for practical activities and experiments with pupils and lack of equipment for these activities. For this purpose EuroEd brought together representatives of 2 high schools and of the Faculty of Physics to collaborate and agree on signing a contract with the view of free access to the schools pupils and teachers to use the Faculty of Physics laboratories for practical activities with pupils.

The first topic of the workshop was the presentation of the Goerudio project. The 2 representatives of EuroEd presented the general idea of the project and the activities proposed. The following data have been introduced: The aim of the project - to create a learning community of science teachers and students willing to identify solutions to overcome the main obstacles when studying scientific subjects and development of innovative teaching methods for science; The project activities and results - Action 1: Creation of school network (35 schools, 70 scientific teachers, 1400 students); Action 2: Teacher (350) and students Experiences (700); Action 3: Identification of project initiatives (210); Action 4: Review of the initiatives; Action 5: Participation in a virtual meetings; Action 6: Communication campaign; Action 7: Development of interactive educational products. Pupils have been interested in the project opportunity to interact and comment to experiences and activities done by other pupils from other countries and to find out ways to understand easier scientific notions. Participants discussed about students' lack of motivation when studying scientific related topics and about science school teachers difficulties to find innovative teaching methods.

To support the participants to understand more the Goerudio project, the 2 staff members presented the Goerudio model and approach proposed for learning sciences. Goerudio has been presented as a learning methodology that is based on user involvement in its application and subject matter development. The program enables the user to explain complex formulas, physics laws and concepts presented by teachers with simple and familiar examples that are readily understood. Participants were involved in discussions about comprehension as the ability to find, evaluate, compare, manage the received information and pass it over to others. Necessary level of comprehension provides efficient communication within a specified group of individuals (school, conference, university, etc.). Poor understanding is a result of poor communication. To attract and make the pupils understand, a serial of models - drawings developed within the project have been presented.

The next topic facilitated the communication among pupils and teachers about their experiences, good or bad, about the physics lessons. Participants discussed on the ways to make the science lessons more interactive. One of the tools proposed was the use of technology in the classroom. The main highlight was the fact that technology makes science look real, provides choices, can balance the challenge and can establish a sense of belonging. Together with teachers students can also integrate multimedia desktop publishing, web publishing, video and audio editing, as well as graphics programs to create and present information in innovative and engaging ways and can use spreadsheets, virtual labs, and other programs to store, organize, and analyse information.

The next workshop activity included the presentation of the Faculty of Physics by Conf. Dr. Paul Gasner, UAIC with the view to support the students to realize how interesting and attractive can be Physics, by showing similitudes of scientific notions in usual activities done by the students.

The next part of the workshop involved the pupils in Students Laboratories. Students from the Faculty of Physics organized and hold experiments for the pupils on various topics and using different equipment. The aim of the lab activities was to make the pupils understand easier physics phenomenon.

In the end of the workshop, participants were invited to collaborate in providing ideas for development of Goerudio models and interactive educational products. As conclusion, participants agreed that the project encourages students to be the managers of their own learning process, giving them the chance to achieve personal learning goals in addition to learning the scientific issues that meet their needs.

As follow up activity, EuroEd held discussions with the directors of the 2 high schools involved and with the representatives of the Faculty of Physics about the possible collaboration between the institutions. As result Faculty of Physics and the 2 schools signed a collaboration contract for the free access of tthe Faculty of Physics laboratories for practical activities with pupils.

Annexes

1. 2nd Seminar_RO_Programme
2. 2nd Seminar_RO_List of participants
3. 2nd Seminar_RO_Photos
4. 2nd Seminar_RO_Products (Goerudio_Project presentation; Collaboration protocol_EuroEd-Univ-Schools)