Physics Devourers' Morning Workshop on Goerudio Method

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Context

European educational systems are facing two common challenges:

- Students' lack of motivation when studying scientific related topics
- Science school teachers difficulties to find innovative teaching methods

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Context

Goerudio

Comprehension is 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

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Objectives

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The aim of the project is to create a learning community of science teachers and students willing to identify:

- Solutions to overcome the main obstacles when studying scientific subjects

- Innovative teaching methods for science

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Goerudio - Method and Tool
Goerudio

Goerudio is a learning methodology that is based on user involvement in its application and subject matter development.

This program enables the user to explain complex formulas, physics laws and concepts presented by teachers with simple and familiar examples that are readily understood.

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Goerudio - Method and Tool
Goerudio

The key difference between Goerudio and similar tools is that it facilitates learning rather than teaching and does not conflict with traditional teaching methods.

$$F = \gamma \frac{m_1 \cdot m_2}{r^2}$$

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Goerudio - Method and Tool

Goerudio provides an internet based framework through which the user pool (students) refines the concepts and models in support of any given subject.

$$F = g r \frac{m_1 \cdot m_2}{r^2}$$

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Goerudio - Method and Tool

Through active involvement in the process and the use of familiar examples, the learners rapidly gain a better understanding of the underlying principles or processes.

Interaction and communication among the users helps to develop a common understanding of the concepts and their relationships to relevant laws of science and mathematics.

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Target Groups

The project is addressed to:

- Science teachers
- Science students
- Policy makers in the education sector

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Project Activities

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)

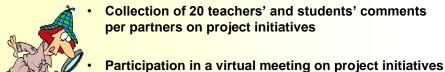**Action 4 – Review of the initiatives** (210)

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Project Activities

Action 5 – Transnational discussions

- **Collection of 20 teachers' and students' comments per partners on experiences**

- **Participation in a virtual meeting on experiences**

- **Collection of 20 teachers' and students' comments per partners on project initiatives**

- **Participation in a virtual meeting on project initiatives**

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Project Activities

Action 6 – Communication campaign

Organization in each country of 2 national seminars

Action 7 - Creation of Goerudio Portal and Website

Action 8 - Project Management

Action 9 – Dissemination

Action 10 – Exploitation

Action 11 - Quality Assurance

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Why Use Technology in the Classroom?

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- Technology, when used appropriately, can help make the science classroom a site of active learning and critical thinking, encouraging student inquiry and connections with the online materials.
- Teachers can use technology to enable students to explore fundamental curriculum issues and answer core questions.
- Students can use the Internet, electronic databases and other online sources to gather information.
- They can use spreadsheets, virtual labs, and other programs to store, organize, and analyze information.

   - 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

Lifelong Learning Programme

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Why Use Technology in the Classroom?

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- Technology makes science look real
- Technology provides choices
- Technology can balance the challenge
- Technology can establish a sense of belonging

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Conclusion

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.

$$y = f(x)$$

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Project Website

http://goerudio.pixel-online.org/index.php

Project Facebook

https://www.facebook.com/goerudioscience?ref=hl

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