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Chemistry is All Around Network Workshop on "Student's Motivation" Granada (Spain), 26 September 2012

Minutes

Participants

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Minutes

Spanish workshop was held on September at Santo Tomas de Villanueva School. Ten participants: 4 experts and 6 teachers.

Antonio Jesus Torres Gil was the moderator of the workshop.

Timetable of the workshop: 16.00 – 20.00

1. Project presentation
 2. Presentation of teachers' and experts' comments (tool WP3.A) about the papers on student's motivation uploaded by Partners on the Project Portal
 3. Presentation of teachers' and experts' comments (tool WP3.A) about the teaching resources uploaded by Partners on the Project Portal
- Coffee break
4. Definition of resources to be proposed for trial during next school year.
 5. Conclusions

The workshop started with a power point presentation of Chemistry is all around network project. A general overview of the project task done and to be done was presented through the project chronogram. Briefly presentation of the project partnership consortium to figure out the map of the institutions, their background and persons involved in the project.

Almost all participants have been navigated in the project portal before the workshop and they knew the comments from other countries experts and teachers about student's motivation.

Following the introduction experts and teachers made their presentation of their comments about papers and

1



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518300-LLP-2011-IT-COMENIUS-CNW

review of publications of student's motivation and teaching resources uploaded by partners on the Project Portal.

Attendances conclusions where:

- Motivation problems on chemistry students are common to most countries in Europe.
- Decreased number of sciences students in all school levels
- Lack of students motivations due to intangible vision of students on sciences
- Decline of attitudes towards science subjects in school.
- It seems proved that the attitude decline is responsible for the separation of the students from science and technology.
- Change teachers' role in teaching of sciences (motivation- feedback).
- Papers about motivation demonstrate that European student's aren't so different from one country to another.
- Science teaching is base in a very theoretical way all around Europe and it is needs to be adaptate to everyday life in order to catch the attention of students to sciences subjects.
- ICT resources must be included in chemistry teaching.
- Science student's motivation is totally decrease in secondary educational level.
- The motivation decrease is more significant in female gender students.
- Differences between students with negatives or positives attitudes are concerned to the useful of science, but not its difficulty or attractive.
- The necessity of a teacher's review on student's interest.
- Revision of teaching sciences contents at students levels
- The role of the teacher in class it is totally influent on students choice
- The necessity of a new way of approaches from expert to scientific work
- We must look for ways for experts to approach scientific work and contributions of science to our students.

Some initiatives carry out in the University of Granada was mention by the experts. Those initiatives consist to bring scientific work closer to the classroom. Some exemplas are, visit research centres and show the students what they are doing there. Another very good example are the sciences museums, and the way in which they spread science in an attractive and hands-on form.

The relevance of some articles was mentioned, such as Norman Reid's "A scientific study about why our student don't like chemistry, and a number of reports and papers about the use of everyday science like "Chemistry at home" by Salta, Gekos and other Greek authors. It's a non traditional didactic approach based on the teaching of science in context. Some people made comments about the Rocard Report and asked for the dissemination of this report to secondary school teachers.

During the workshop participants debated about possible solutions regarding the decrease student motivation in chemistry and they reached some interesting conclusions. For example, we discussed how making chemistry understandable for the students is the most direct way to motivate them. In fact, many times an excess of theoretical content taught in our schools (such as formulation) makes understanding the subject difficult and moves to our students away from the science classroom.

Regarding resources, the majority of the workshop participants evaluated the amount of attractive resources that are presented in the project's portal and some mentioned its great possibilities for teachers teaching in the classroom. Very constructive comments were made about the Portuguese web page "A química das coisas" ("The chemistry of things), the web "Chemistry for life" and all the teaching resources made with





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JMOL, and we looked at the possibility of applying some national resources in the classroom this coming school year.

Finally, some meeting attendants highlighted that participating in the project and in the meeting had been very beneficial, giving them a chance to exchange ideas among different countries methods of science teaching, it is very enriching because it offers many points of view, stimulates reflection and motivates teachers to look for improvements in the “day to day” of their works.