



Chemistry is All Around Network Workshop on "Student's Motivation" Liège (BELGIUM), the 26th of September

Minutes

The working group meeting on students' motivation took place on the 26th of September in Liège.

Participants to the workshop:

Around twenty teachers and all the Belgian experts in chemistry: 2 professors of chemistry at the University of Louvain-la-Neuve, 2 college trainers for teachers, 1 educational counsellor and official representative for Belgian education, 1 expert trainer in ICT, and 1 member of the Belgian Chemistry Association

Participants

INFOREF: Zlata SELAK, Geneviève BERCK, Benoît WAGELMANS

EXPERTS involved in the project:

Seven experts are involved:

- Four of them train teachers
- Two are university professors at UCL (Université Catholique de Louvain)
- One is a science teacher using ICT

They are all specialised in chemistry and have experience in didactics, initial teachers training, continuing training, ICT...

Teacher trainers

DIVNA BRAJKOVIC

Specialisation: initial and continuing training of chemistry teachers

Institution: HELMo (Catholic higher education, Liège)

Role in the project: officially granted time by her institution to coordinate the scientific content of the European project.

She organises with Inforef free trainings to create new sequences in chemistry: using the interactive whiteboard and modelling in addition to the experimental approach.

➤ JEAN-LUC PIECZYNSKI

Specialisation: pedagogical counsellor for chemistry teachers **Institution**: SeGEC – General Secretariat of Catholic Education

Role in the project: Guidance to create new lesson sequences: how the systemic approach can optimise chemistry learning and what part ICT can have.







PIERRE HAUTIER

Specialisation: trainer for chemistry teachers in ICT and laboratory experiments

Institution: SeGEC, continuing training (at IFC and CECAFOC), honorary professor of chemistry

Role in the project: Expert in the use of ICT for new lesson sequences

➤ NATHALIE MATTHYS

Specialisation: initial training of chemistry teachers (for 12 – 15 year old students).

Institution: ENCBW normal school (Louvain-la-Neuve)

Role in the project: Guidance to create lesson sequences and 3D animations for 15 year old students. These tools are being created on the DIDAC-TIC platform (http://didac-tic.sk1.be/).

University professors

MYRIAM DE KESEL

Specialisation: science and didactics for future teachers

Institution: UCL (Catholic University of Louvain)

Role in the project: Responsible for teaching qualification in science and for the supervision of students' internship in secondary schools. Within this framework, the new ICT resources in chemistry will be tested by the interns and pupils in the said schools (10).

BERNARD TINANT

Specialisation: chemistry and didactics for future teachers

Institution: UCL

Role in the project: Guidance in the sequences created regarding the scientific content and didactic

approach

ICT teacher

Dominique Lambert

Specialisation: science teacher using ICT **Institution**: Abbaye de Flône (Amay)

Role in the project: Expert in ICT (e-book, platforms, tablets, podcasts...), reference person regarding the

teaching resources review

SCHOOLS involved in the project:

COLLÈGE DU SARTAY (Embourg)

Teachers: Sabine Jacquemin

COLLÈGE SAINT-LOUIS (Waremme)

Teachers: Celine Cherdon

Collège Sainte-Véronique (Liège)

Teachers: Elizabeth Jantsky, Véronique Bollinne, Françoise Derwa

➤ INSTITUT DE LA PROVIDENCE (Herve)

Teachers: Simonne Liégeois, Michaël Warnier

Collège Notre-Dame de Basse Wavre (Wavre)

Teachers: Geneviève Delire

ÉCOLE NORMALE CATHOLIQUE DU BRABANT WALLON (Louvain-la-Neuve)

Type of school: Normal school Teachers: Laurent Gruber (science)







Minutes

Presentation of the workshops carried out

1) Students' motivation

- Discussion on the publications and papers added by the partners on the portal and reminding of the procedure to add comments.
- 2. Presentation of the **national summary text** made by the Belgian experts team (University of Louvain-la-Neuve) and debate with the participants.

2) ICT resources

- Presentation of some of the existing resources selected and reviewed by the Belgian experts and teachers.
- 2. Exchanges: teachers' questions and expectations
- 3. Several tools to meet their expectations:
 - Creation of new interactive resources with flash, 3D Screencast (ethanol fuel), tablet: creation of molecules
 - Interactive book
 - e-learning platform
- 4. Other teaching idea suggested: creating new lesson sequences: how systematism can optimize chemistry learning? What part can ICT have?

Conclusion of the workshop:

After identifying and analysing the existing ICT resources it emerged that it is difficult to find didactic tools adapted to the students' level in the appropriate language.

Solutions are proposed to teachers in Belgium: creating new ICT resources with the technical help of Inforef's team:

Several tools will be developed:

- To create new lessons associating the use to associate the use of ICT, experiments and a systemic approach
- To create new sequences in chemistry: using the interactive whiteboard and modelling in addition to the experimental approach
- To create lesson sequences and 3D animations for 15 year old students. These tools are being created on the DIDAC-TIC platform http://didac-tic.sk1.be/.

Cooperation between teachers and experts:

The experts supervise several professor groups are divided according to:







- The area (Liège or Louvain),
- The education level of the pupils (15 or 18) upon which the teachers' training depend (normal school or university),
- The objective of the working group: analysing existing teaching resources, creating new lesson sequences using the interactive whiteboard, the systemic approach and the platform "didac-tic".

Conclusion:

Chemistry is a particularly complex science, in which beginners need support from an expert in order to:

- 1. Master the science jargon
- 2. Master it through experiments
- 3. Master it through the use of ICT