Participants

The workshop was participated by 13 participants. 5 of them were project Chemistry experts and 3 Chemistry teachers, 3 associated partners involved in the project (two teachers and one expert). 2 other participants were WSIU representatives Magdalena Gałaj and Magdalena Bujak. Below there is a list of experts and teachers involved in the workshop activities.

Experts:
- Mgr Alicja Szymańska Paszczuk representing Dr n. Farm. I inż. Chem. Elżbieta Zurek – Medical University of Lodz
- Dr Iwona Krawczyk – Technical University of Lodz
- Mgr Helena Kaniewska – 3 Age University
- Mgr inż. Jadwiga Skowrońska – Technical University of Lodz, 3 Age University (retired)
- Dr Monika Smaga – ABiS Lower and Upper Secondary Schools

Teachers:
- Mgr Jan Stawiany – retired Chemistry teacher
- Mgr Joanna Błaszczykiewicz – School4Child Primary School
- Mgr Luiza Wężyk – 33 LO in Łódź
- Mgr Jan Bołtuć – ZSP 19 – associated school
- Renata Caboń – ZSP in Lowicz – associated school
- Mgr Artur Gruszczyński – Edsoft – associated partner

Administration:
- Magdalena Bujak
- Magdalena Gałaj

Objectives of the workshop

The main objective of the workshop was to introduce Polish teachers and experts to the contents of the Project Porta l and resources available there with reference to teacher section. The workshop was also intended to involve teachers into further project activities related to planning, designing and implementing new resources on the portal and prepare them for further stages of the project (teacher training and best practices).

Workshop Organization

The workshop was organized on 4 June 2013 at 15:00-19:00. It was quite short due to many teachers and experts’ suggestions. It has been agreed that the needed cooperation and exchange of information will be done by e-mail. However, despite the convenient timing the workshop was participated by quite a small number of teacher of teachers. Most of them when contacted on the phone excused themselves with being busy at the end of the year. Unfortunately some also quit the project in the meantime due to various reasons.

The workshop was moderated by Monika Smaga (ABiS) and Magdalena Gałaj WSIU at the premises of the Foreign Languages Department. During the workshop teachers and experts received all the necessary materials about the project requirements to facilitate project work.

Delivery of the contents
During the workshop teachers and experts were briefly reminded about the project activities and once again were reminded about the deadlines. Teachers were introduced to the contents of the course briefly and asked to study it on their own back home.

The main part of the meeting was occupied by presenting the portal resources with reference to materials collected for teachers and analysis of the quality of materials provided. Participants were also able to discuss the Polish situation with reference to teaching and educating prospective teachers of chemistry and motivating young people to study the subject further on their own. Then discussion moderated by dr Monika Smaga took place. It started with a short presentation of the Polish situation to let everybody realize the facts and figures and general career path development of an average chemistry teacher. She briefly reminded how long the basic training takes place with reference to hours and years and compared the ratio of theoretical and practical training for the average student. She pointed out the amount of hours spent in labs involved in experiments and compared it to the hours spent with the end user – student, in case of teacher training specialisation. Teachers and experts were also presented briefly with the main objectives of the conference in Gabrovo. Dr Aleksandra Krzewicka-Smejda’s paper was circulated to encounter the participants with its contents. The outcomes were the following:

- Polish student of Chemistry at University or Polytechnic is better prepared for teaching in theory than practise
- He/ she has access to equipment and chemical experiments when at University and then lacks these opportunities when starts proper teaching at schools, which do not even have proper chemical lab
- Educational reform in Poland interfered with the core curriculum development - for the last few years it got changed few times which results in disorientation and lack of cohesion of ministerial requirements and the factual learning outcomes
- Chemistry teacher is supposed to develop professionally (each teacher in Poland follows a career development process – 4 stages) but during the process his/ her chemical knowledge is not much verified
- Courses, workshop, conference and training participation are not mandatory, and usually if of higher quality, also quite expensive
- Polish chemistry teacher has to cater for his/ her professional development on the individual basis which may result in the lack of motivation and loss of quality of teaching
- Polish Chemistry teacher lacks good English language skills which is very limiting and can slow down self-teaching and restrict use of solutions applied by foreign chemistry market

Suggested solutions:
- Financial resources from the government to equip schools better and allow teachers to participate in free or at least cheaper, high quality trainings
- Access to initiatives such as Chemistry is All Around Network project and its free of charge resources
- Language courses for chemistry teachers

Examples of good practice:

1) Jagiellonian University – A language course for chemistry students and teachers - [http://www.efch.jcj.uj.edu.pl](http://www.efch.jcj.uj.edu.pl)

**English for Chemistry: Film Bank** is a non-profit project, aiming to provide materials for teaching English for Specific Purposes at B2 level in accordance with the Common European Framework of Reference to the students of the Faculty of Chemistry at the Jagiellonian University in Kraków. The project was conducted in the academic year 2010/11 by third year students of this faculty under the supervision of Dorota Klimek, a teacher of English at the Jagiellonian Language Centre. The film bank includes a set of listening comprehension exercises based on films concerning a variety of chemistry subjects, carefully selected from the multitude of materials available on the Internet. The films are accompanied by a follow-up section, consisting of complementary reading and vocabulary exercises. The materials can be used in the classroom and for self-study purposes alike. The files are also available as printable pdfs.

The reaction of teachers and experts

Teachers and experts were generally quite positive about the contents of the workshop – those who were generally positive about the project and the portal recourse available online on the Chemistry is All around Network platform found it useful and for those, so far quite reluctant to cooperate fully, some bits of the workshop were difficult and the portal not user-friendly. Technology mattered here a lot as some teachers complained about poor internet connection at home when they wanted to upload their comments. Teachers appreciated the Polish language version of the portal.

Skills Acquired

Teachers and experts were briefly acquainted with the contents of the portal, all the resources available there and were introduced to their roles in further project assignments.

The evaluation of the portal

Evaluation of the portal was not carried out during the workshop. The questionnaires about the portal will be sent and the report produced at the later time.