



Chemical Society Annual Report to the EuCheMS Division of Chemical Education for 2015-2016¹

Iztok Devetak

1. Abstract

I have recently taken over from Metka Vrtačnik as the representative from Slovenia in the Division of Chemical Education. Some information are presented in this repost about chemical education in Slovenia, such as the chemical education system in Slovenia, what were major events in chemical education, and which activities of Commission for Chemical Education of Slovenian Chemical Society were performed.

2. National educational policy

Because Commission for Chemical Education of Slovenian Chemical Society (http://www.chem-soc.si/?set_language=en) haven't reported for some time now to the EuChemMS, I believe that some additional information about chemical education in Slovenia should be stated here.

There was no change in the Chem. Ed. policy in the last years. According to the school curriculum reform in Slovenia (school year 2003/04), the eight-year elementary school (pupils aged from 7 to 14) was replaced by the nine-year elementary school (pupils aged from 6 to 14). However, the classification and the level of complexity of science subjects did not change significantly. The students' age on entering the chemistry course was the same (13 years old) and also the number of lessons per week (two 45 minutes lessons) did not change during the reform. The greatest change was experienced in the curricula of the science subjects, also chemistry, emphasizing active teaching and learning methods in the nine-year elementary school compared to the curricula in the eight-year elementary school. This should have a positive impact on the motivation of students to learn science. After finishing primary school students enter secondary school. Those schools differ in chemistry courses depending on the type of the school. If students enter general secondary school (Gimnazija) they are engaged in 3-year chemistry education and if they decide to do Matura exam at the end also in chemistry (it is elective subject) than they are engaged in additional

¹ July 2015-August 2016, all levels of chemistry education: primary, secondary schools, universities, LLL, general and vocational education.

year to prepare themselves for the exam. In this case before they enter the university they were engaged in 6-year chemical education.

At the moment no changes in chemistry curriculum (or educational policy concerning chemical education) are planned in Slovenia.

Chemistry teacher education is two-tier in Slovenia. In one case students can engage in 4 + 1 University programs to become two subject teachers in Faculty of Education. Chemistry is combined with biology, physics or home economics. Those teachers can teach chemistry in primary school and in those secondary schools which do not have Matura exam in chemistry. The other possibility is to become a secondary school chemistry teacher. Students enter chemistry study at the Faculty of Chemistry and Chemical technology in general 3-year program and after that they can enter Chemistry education program for 2 additional years (3+2).

Teachers can also engage in in-service programmes that provide contemporary aspects in chemistry education. The main CPD providers in Slovenia are University of Ljubljana (Faculty of Education and Faculty of Chemistry and Chemical Technology) and University of Maribor and also National Education Institute Slovenia where three chemistry consultants are employed and they have tight connections with teachers.

3. Events in chemical education

In August 2015 the third biennale national conference for science (also chemistry) teachers was organised by the National Education Institute Slovenia in Laško, Slovenia. The conference lasted for 2 days and teachers from all over Slovenia presented their good practices to each others and they also participated at lectures and workshops prepared by the university teachers and other CPD providers.

4. Activities of the National Chemical Society

Commission for Chemical Education of Slovenian Chemical Society cooperates with ZOTKS, an organisation that organises chemical competitions for primary and secondary school students. In cooperation with Faculty of Chemistry and Chemical Technology (University of Ljubljana) they also prepare secondary school students for Chemical Olympiad. Slovenian students were very successful this year in Tbilisi Georgia, one achieved silver and the other three bronze medal.

5. Publications

Slovenian Chemical Society publishes SCI journal Acta Chimica Slovenica ACS (<http://chem-soc.si/acta-chimica-slovenica>) – four issues per year. There is also a section Chemical Education Research in the journal and in the last two years only three papers were published, and only one of them was a research paper about concept maps in teaching organic chemistry in secondary school, the other two were more like history of chemistry papers, presenting Ana Jenko Sterba-Böhm – the first Slovenian female with PhD in chemistry and the achievements of the Jesuits from the Austrian and Bohemian provinces, who have published books on chemistry. We would like more chemical

education research papers to be published in ACS in the future and international papers are welcome.

6. Liaison with the chemical industry

Pharmaceutical industry in Slovenia (Lek and Krka) sponsor chemical competitions organised by ZOTKS (see above).

7. International and European initiatives

Members of the Commission for chemical education participated at the ESERA and ECRICE conference.

8. Other events and activities

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9. Name of delegate and deputy

Iztok Devetak

No deputy at the moment.

10. Contact details of delegates.

Dr. Iztok Devetak, Associate Professor for Chemical Education
Head of the Department of Biology, Chemistry and Home Economics
University of Ljubljana
Faculty of Education
Kardeljeva pl. 16
1000 Ljubljana
Slovenia
EU

e-mail: iztok.devetak@pef.uni-lj.si

tel. +386(0)1 58 92 204

fax. +386(0)1 58 92 233 for dr. Iztok Devetak

www:

<https://www.pef.uni-lj.si/1086.html>

https://www.researchgate.net/profile/Iztok_Devetak