

Poster Presentations Session 6: Education in Environmental Chemistry

Log Book of Chemical Rescue Team as a Source of Case Studies for Education in Environmental Chemistry

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Case study involves problem solving within a real life. It is one of the most effective methods in environmental chemistry education. However, it concerns mostly the tertiary education. In this paper, the use of case study in secondary education was discussed. It is known that there is a shortage of examples of good practice in teaching environmental chemistry available to ordinary schoolteachers. On the basis of selected examples from the Reports book of Polish chemical rescue team new educational materials was developed and used in schools. Upper secondary school students (age 16–19) had to propose their own solution for the case of 'environmental accident' like the leakage of concentrated nitric acid or aldehyde during transportation. Students worked in the group of 3–5 persons and later had to present their short

reports. After the discussion and analysis of all proposed methods for solving of the environmental problem a general discussion was organized. Finally the students were informed about the method that was really used by chemical rescue team (in Poland they operate under the umbrella of Fire Brigade). The use of problem based case studies provides an opportunity for teaching/learning of transferable skills (team working, problem solving, presentation skills, using of various sources of information etc.) Students also develop their understanding of the principles and applications of chemistry in environment.

Keywords: Education in environmental chemistry; log books; Poland; secondary education; teaching