

Project Based Learning in early stages of a Bachelor Program in Forensic Science

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In the period 2006-2010 a new bachelor program on forensic science was developed at Avans university of applied sciences. The program is focused on analytical chemistry and DNA profiling and the students are taught to perform experiments in a laboratory environment. The program was set-up after discussions with the work-field. In 4 years students will reach the level defined by the Dublin descriptors. However, we believe group-work and interpersonal skills are vital for success in modern careers. Therefore an important part of the program is project based learning (PBL).

In the first year a total of 20 out of 60 EC's is used for PBL in 4 projects. The projects increase in size during the program. In early stage projects, a combination is made of group work and personal tasks. Subjects are alcohol abuse, burglary, arson, drugs and sports doping. During each project students have to answer general questions and perform at least 3 experiments. Apart from written reports, power point or poster presentations are used. In the later stage projects, working with research aim, hypothesis and the experimental set-up are more important. Occasionally, projects are carried out in cooperation with the work field, while the final projects are placements.

Recently, a new early stage project was developed around the food supplement geranamine. This compound is used in various slimming products. Geranamine is not legally restricted, but is on the WADA doping list. Therefore sportsmen and -women are not allowed to use it. In this learning project students learn various aspects about sport doping, and have to analyse food supplements and spiked urine samples by Gas Chromatography (GC). The robustness of the method was investigated before it was run and evaluated by 2 groups of students.

In this presentation an overview will be given of the developed bachelor program and the role of project based learning in early stages. The geranamine project will be discussed with emphasis on teaching goals, time frame, and student evaluations.