

PRACTICAL FORENSIC CHEMISTRY – A TEAM BASED, STUDENT-CENTRED APPROACH

Robert Berthon

Presenting Author: Robert Berthon (Robert.Berthon@cit.edu.au)
Science, Forensics and Engineering Centre, Canberra Institute of Technology, Canberra ACT 2601, Australia

KEYWORDS: problem-based learning, teamwork, practical work

ABSTRACT

A problem-based approach to undertaking practical work has been adopted as an alternative to the traditional 'cookbook-style' laboratory manual. The aim of the approach was to enhance the students' practical experience and encourage them to engage more deeply with the concepts underlying the practical sessions. First year students undertaking chemistry as part of the Bachelor of Forensic Science degree at the Canberra Institute of Technology were divided into teams of four, each student was assigned a role – team leader, research coordinator, experiment coordinator or experimental analyst – for each practical session and the roles were rotated during the semester. Assessment included the preparation of reports and the presentation of results to peers. Feedback from students indicates that although they have found the approach challenging they have learnt more than they would have by following 'practical recipes'. The utilisation of teams helped the students to work collaboratively and better reflects real world situations that they will find themselves in after they graduate.

Proceedings of the Australian Conference on Science and Mathematics Education, Australian National University, Sept 19th to Sept 21st, 2013, page 14, ISBN Number 978-0-9871834-2-2.