**Context and Problem Based Learning: an Integrated Approach**

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Context and Problem based learning (C/PBL) has been identified as an effective way of enhancing the learning experience of physical science undergraduates. The C/PBL approach works by setting students open-ended problems with engaging scenarios which help illustrate the variety of ways in which the students’ understanding of the subject may be applied as well as the importance of problem solving skills to professional scientists. This innovative approach to teaching science can also greatly enhance the transferable skills of undergraduate students.

The Department of Chemistry at the University of Leicester has been using context and problem based learning (C/PBL) in chemistry teaching since 2007. The integration of C/PBL into teaching at Leicester has improved the retention rate of first year students. The varied modes of assessment for C/PBL activities have also led to an improvement in the transferable skills of Leicester chemistry students.

This seminar will discuss the practicalities of developing and integrating context and problem based learning (C/PBL) activities into a physical science programme, highlighting potential challenges as well as aspects of good practice. The session will include examples of C/PBL activities developed at Leicester as well as a short problem for participants to engage with. The session will conclude with a brief discussion of the impact that C/PBL has had on the student experience at Leicester.

**Relevant UK PSF Areas**

* A1: Design and plan learning activities and/or programmes of study
* K2: The appropriate methods for teaching and learning in the subject area and at the level of the academic programme
* V3: Use evidence-informed approaches and the outcomes from research, scholarship and continuing professional development

**Biography**

I graduated from the University of Liverpool in 2003 with a master’s degree in chemistry (MChem) and I completed a PhD in nanoscale chemistry at Liverpool between 2003-2007.

Since 2007 I have worked in a number teaching focused roles at the University of Leicester. I am currently a teaching dominant lecturer in the department of chemistry. My research interests include the development and evaluation of innovative approaches to chemistry teaching primarily based on the Context/Problem Based Learning (C/PBL) approach and the measurement of student perceptions towards transferable skills development.

In June 2012 I was awarded a University Teaching Fellowship in recognition of my innovative approach to teaching. Since 2012 I have produced three peer-reviewed C/PBL resources which have been published by the Royal Society of Chemistry (RSC) as open educational resources.

I am a Member of both the Royal Society of Chemistry (RSC), a senior fellow of the Higher Education Academy and committee secretary of the RSC Tertiary Education Group.