

**Event Report** 

# An introduction to educational (pedagogic) research in the sciences

Thursday 11<sup>th</sup> October 2007, University of Salford.

This one-day event was aimed at staff from bioscience and other science disciplines who are



interested in developing their teaching activities and their understanding of student learning with a view to research leading to publication. The day provided attendees with an opportunity to consider educational (pedagogic) research in a scientific context and how this relates to their own practice. The programme included a mixture of presentations and opportunities for discussion and a swapshop element to allow individuals to share early

experiences of venturing into the educational research and publication arena.

I really enjoyed the day. I feel that I was given me the confidence to proceed in this PedR direction.

**Extremely informative and supportive.** 

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One of the most useful events I have been to.

### Pedagogic research in a science context

Ian Hughes, University of Leeds

Using himself as a case study, lan set the scene for the day and covered the issues involved in getting started with pedagogic research, including funding, how educational research differs from scientific research and publishing. He emphasized that most have to introduce changes to teaching at sometime or other (i.e. introduce an intervention) so why not think write-up from the start and publish the work?

### Collecting the evidence - an introduction to research methods and methodologies Mike Joy, University of Warwick

Mike did an excellent job of guiding delegates through the various pedagogic research methods that are available as well as de-mystifying some of the language used. He also touched on the ethical considerations of carrying out investigations on people.

## Reasons for undertaking qualitative pedagogic research Paul Orsmond, Staffordshire University

Paul introduced qualitative research and explained that qualitative analysis is required in addition to quantitative analysis to get the richness out of the data available to researchers. He included tips for getting started in carrying out your own research, places to go for help and raised the topic of reliability and validity.



#### Getting published - writing papers for pedagogic research journals

Chris Willmott, University of Leicester and former Editor-in-Chief of the Centre's Bioscience Education e-journal

Chris' talk started with seven reasons why pedagogic research papers get rejected to help delegates avoid such mistakes. He continued by explaining why and what to publish, as well as strategies to research the pedagogic literature and suggestions of which journals to publish in.

#### **Discussion session**



This session was facilitated by Steve Maw (Centre for Bioscience) and focused around the topic 'Design of research investigations'. Delegates split into groups and discussed how they would go about researching the questions presented in one of three different scenarios. The scenarios along with the rationale and linked papers are available below:

#### **Swapshop**

The Swapshop was chaired by Jackie Wilson and gave contributors an opportunity to share practice, ideas and experiences of getting started in educational research in the sciences.

**Strategy for engagement of teachers in reflection on teaching practice** - Frances Tracy (University of Cambridge) shared the Plant Science Pedagogy project at the University of Cambridge. The goals of the project were to develop learning approaches and resources for second year students. Ways of collecting student attitudes and areas to change were also shared.

Attendance monitoring in 1st year biomedical sciences - Debbie Bevitt (Newcastle University) highlighted the work of attendance monitoring and student support at Newcastle University. Different attendance monitoring strategies were shared as well as the logistical development. Results of the program were discussed.

#### **Related Resources**

Further information on pedagogic research in the biosciences is available from http://www.ics.heacademy.ac.uk/resources/pedagogical/cs\_research/