Details
Date: Tuesday June 19th 2012
Location: Oxford Spires Four Pillars Hotel, Abingdon Road, Oxford, OX1 4PS

Agenda
09:30 — 13:00 Talks and open discussion 1
- New technologies, new hopes: teaching the biosciences for nursing
  Colin Torrance, Professor of Healthcare Professional Education, University of Glamorgan
- Experiences of teaching genetics to post-registration nursing students
  Sarah Ashelford, Biosciences Lecturer, University of Bradford
- Do information learning technologies make learning fun?
  Rhys Jones, Lecturer in Applied Physiology, Birmingham City University
- LabTutor - the blended learning approach
  Tony Macknight, Emeritus Professor of Physiology, University of Otago, New Zealand
  Director, ADInstruments

13:00 — 14:00 Lunch

14:00 — 17:00 Talks and open discussion 2
- Reflections from the whiteboard: A case study in the use of open educational resources
  Damion McCormick, Lecturer in Biological Sciences, University of Nottingham
- Letting-go of bioscience teaching in nurse education: a culture shock change
  Heather Bull, Lecturer, University of Nottingham
- Engaging student nurses in large bioscience classes: The ‘Millionaire’ method
  Nikolaos Efstathiou, Lecturer, University of Birmingham
- LabTutor for Nursing overview

Abstracts
New technologies, new hopes: teaching the biosciences for nursing
Colin Torrance, Professor of Healthcare Professional Education, University of Glamorgan

The biosciences have long been seen as a problem area in the nursing curriculum. With the move to degree programmes and the increased complexity of nursing practice including areas such as nurse prescribing the need for effective bioscience teaching has never been greater. A number of new technologies have the potential to improve student engagement with the biosciences and support deeper learning. In the online digital world students and teachers are no longer restricted to a chalk and talk approach. Teaching and learning the applied biosciences has the potential to become one of the most exciting elements in the nursing curriculum.
Abstracts (continued)

Experiences of teaching genetics to post-registration nursing students
Dr Sarah Ashelford, Lecturer, Division of Nursing, University of Bradford

Advances in human genetics, molecular therapeutics and stem-cell technology have meant that an awareness of genetics is increasingly important in many areas of health care.

In this presentation I will examine the experiences of teaching genetics to post-registration nurses in Bradford. I will examine the range of nursing backgrounds of those taking a genetics module from our CPD provision and what their motivations are. I will discuss some of the methods used to deliver the content which includes input from the genetics counselling service in Leeds. The value of the module from the students’ perspective will also be presented.

Do information learning technologies make learning fun?
Rhys Jones, Lecturer in Applied Human Physiology, Faculty of Health, Birmingham City University

Modifying kinaesthetic pedagogical practices to include Information Communication Technology (ICT) has been shown to provide students with an enhanced level of extrinsic motivation, which can lead to improvements in student retention and ability. Higher levels of thought involving explanation and argumentation have been recognised as potential vehicles for conceptual understanding. Although the role of dialogue in learning has received much attention, the problem of creating situations in which students engage in epistemic dialogue is apparent. The activities proposed to students, and the role of ICT can help to create epistemic dialogue, as well as providing extrinsic motivation. The action research carried out involved students engaging with LabTutor software and hardware, followed up with a series of paper questionnaires to obtain feedback from the them. Session leader observations were also recorded during the session, again using a questionnaire style feedback form. The results suggest students enjoyed the sessions developed, and did begin to engage with epistemological dialogues. Implications for further research are discussed, along with recommendations for other education practitioners thinking about using equipment such as LabTutor.

LabTutor - the blended learning approach
Professor Tony Macknight, Emeritus Professor of Physiology, University of Otago, New Zealand. Director and Education Consultant, ADInstruments

Since the predominant reason students elect to study Nursing is to work with people, a course that focuses on people and their problems provides strong motivation. Virtually all students now have their own personal computer or tablet, and fast internet access is widely available. Our challenge is to provide on-line material that is instructive, stimulating and motivational so that students become active learners. Such material can increase the depth and breadth of student learning without requiring additional staff, teaching space or formal scheduled teaching hours.

Learning modules can be created integrating tutorials, hands-on work and evaluations, all built around patients whom the students ‘meet’ on-line through professional quality video clips. This way, nursing students are learning their biological science in the context in which they will apply it clinically and they immediately see the relevance of what they are learning. Importantly, because the patients are real people whose lives, and the lives of those around them, are affected by illness and the problems that this brings, it is possible to use these cases to integrate the teaching of biological sciences into the wider social, economic and cultural learning that is essential in all education. With this approach, students see that the biological science is an essential component of their learning.

Reflections from the whiteboard: A case study in the use of open educational resources
Dr Damion McCormick, Lecturer, School of Nursing, Midwifery and Physiotherapy, University of Nottingham

The widespread availability of open educational resources offers the potential to transform the teaching of biosciences within nurse education. High quality digital resources now form an essential component of most teaching and learning strategies. However, the effectiveness of the learning resource is largely dependent on the educational context within which it is used (Littlejohn et al 2006). When integrating any e-learning resource into a curriculum it is important to ensure it addresses a defined pedagogical need and is not simply ‘technology for technology’s sake’. Nurse education exemplifies this need for a personalised approach to using digital resources. Nursing students study biosciences in large
cohorts of mixed ability groups which creates a diverse range of educational experiences (Gresty and Cotton, 2003).

At the University of Nottingham open educational resources have been developed to support students in many areas of pre and post-registration nursing programmes. Areas where these resources have been particularly effective include non-medical prescribing, pharmacology and clinical skills. Open educational resources have now been deployed in a range of blended learning contexts, including lecture-based work, self-directed learning and as support materials for assessments. In this study we aim to explore the pedagogical potential of using open educational resources to increase the level of interaction within a traditional lecture theatre environment. We seek to discuss how the attributes of the learning resource can influence the learning experience and the level of student interaction.

References


**Letting-go of bioscience teaching in nurse education: a culture shock change.**
*Heather Bull, Division of Nursing, The University of Nottingham.*

The Division of Nursing at the University of Nottingham launched the Graduate Entry Nursing (GEN) Programme in September 2009. Students who already have a degree in any subject can enter the programme, complete a post-graduate certificate in nursing and then obtain registration with the Nursing and Midwifery Council (NMC) all within two years. This is made possible in part by utilising student ‘graduateness’. Another design feature of the GEN programme is the use of methodologies that can help prepare students for the constantly changing demands of the work environment for which they are being prepared.

Of interest, the teaching and learning methods do not include a comprehensive programme of bioscience lectures as is provided on the undergraduate Diploma/BSc Programme that runs concurrently. Instead, bioscience education mostly takes place during enquiry-based learning (EBL) activities, with bioscience representing one of five learning areas or domains, which are namely: psycho/social aspects of care, clinical decision-making and skills, personal and professional development, biological science, and evidence-based practice. EBL is triggered by person-centred case studies that are presented from the patient’s, client’s, and/or carer’s perspective. This can appear to give the ‘need-to-know’ focus to domains other than biological science. As a result, the methodologies and student profiles on the GEN Programme have necessitated a culture shift on the part of bioscience tutors who had previously been engaged with lecture-based approaches, for the most part.

This presentation gives an overview of learning activities on the GEN programme, and with regard to bioscience learning, discusses the challenges, anxieties and surprises that have been encountered along the way - so far.

**Engaging student nurses in large bioscience classes: The ‘Millionaire’ method**
*Nikolaos Efstathiou, Lecturer, University of Birmingham*

Effective learning requires active student participation which is problematic when teaching large groups of students. In order to increase student participation and support in the understanding of complex concepts various technologies have been employed. Audience Response System (ARS), or the ‘Millionaire’ method has been used successfully in education. Within our university department, we undertook an evaluation to identify the perceptions of pre registration nurse students on the use of ARS in the teaching and learning of bioscience. We found that ARS increased student participation and aided in identifying misconceptions and in correcting them. Students found ARS very useful and wanted ARS to be extended in other modules.
Thank you for your interest in attending the Bioscience in Nursing Education Forum on Tuesday June 19 2012. To confirm your registration, please complete the form and return it by Friday June 1 2012.

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