Keynote speaker:

Crossing boundaries: Developing pedagogic research in uncertain times

Professor Debby Cotton, Head of Educational Development and Professor of Higher Education Pedagogy, Plymouth University

In an era of increasing student fees and university competitiveness, with TEF joining REF in measuring and performance-managing universities’ activities, what is the outlook for pedagogic research and those who engage in it? In this talk, I discuss some of the pitfalls and possibilities of pedagogic research, and the efforts which can be made to support such research activity. Drawing on evidence from two projects, as well as my own experience in helping form the Pedagogic Research Institute and Observatory (PedRIO) at Plymouth, I consider issues such as credibility, expertise, collaboration and recognition, and how these impact on pedagogic research and potential REF submission. I conclude that pedagogic research has the potential to cross the boundary between teaching and research, to provide the evidence needed to enhance teaching and student success, whilst producing outputs which can meet REF criteria for excellence.

Professor Debby Cotton is Head of Educational Development and Professor of higher Education Pedagogy at Plymouth University. She is a Principal Fellow of the UK Higher Education Academy (PFHEA), and a National Teaching Fellow (NTF). Debby has a doctorate in Environmental
Education from Oxford University, and has published widely on a range of higher education topics. Her main research area is sustainability and pedagogy in higher education, although she has also published on the gender and ethnicity attainment gap, the experience of care leavers in Higher Education, and research-informed teaching.

Debby is a popular invited speaker and has delivered workshops and keynotes on higher education in the UK, US, China and South Africa. She sits on the editorial board of several journals, has contributed to upwards of 25 projects on pedagogic research and development, and produced more than 70 publications on HE teaching and learning issues. She has been involved in supporting and co-ordinating pedagogic research for most of her career, and played a key role in setting up the Pedagogic Research Institute and Observatory (PedRIO) at Plymouth University in 2011. She contributed to a 2014 SEDA Special on ‘Building Staff Capacity for Pedagogic Research in Higher Education’ (edited by Lindsey McEwan and Kristine Mason O’Connor), and was the co-editor of a 2015 Routledge book entitled ‘Pedagogic Research in Geography Higher Education’ (Haigh, Cotton and Hall).

For a full profile and list of papers, please see: [http://www.plymouth.ac.uk/staff/dcotton#](http://www.plymouth.ac.uk/staff/dcotton#)

Parallel sessions 1

Using blended learning to improve the learning of complex topics: An example from the Masters of Pharmacy course

Dr Simon Jeffs, School of Pharmacy and Bio-molecular Science

Masters of Pharmacy (MPharm) students historically achieve poor marks in exams assessing the complex topic of antibody and protein biologicals (APBs). Because a comprehensive understanding of APBs has not been adequately achieved using “traditional” lectures, a blended learning (BL) approach of online work packages (“VLEs”) and Face-to-Face (F2F) workshops has been trialled and assessed. Evidence suggests that BL generally has a positive effect on the performance of student learning in higher education (1). Previous research found that MPharm students at UoB accessing BL tended to show enhanced grade performance (2). This session is based on more recent evaluative research which found that BL enhanced both grade performance and key attributes such as confidence, focus and enthusiasm amongst MPharm students. Quantitative data (VLE access logging; marks pre- and post-BL; access to VLEs –v- total exam marks) and qualitative analyses (online survey) were undertaken to gauge the effectiveness of BL to the APB Topic. This session will consider the findings from the research, some of which were unexpected. For example, BL had a beneficial effect on marks and “VLEphobic” students did not gain higher exam grades than “VLEphilic” students. We will also consider the students responses to the new approach and various improvements which are now being introduced (3). The session will be of particular interest to all whose work involves helping students to learn complex, information-rich topics.

Background references:
Bergman, G. and Sams, A. (2012). Flip Your Classroom: Reach Every Student in Every Class Every Day. International Society for Technology in Education [http://blogs.brighton.ac.uk/elearning/2012/05/03/reverse-learning-a-structured-approach-to-blended-learning-bhavik-patel-pabs/](http://blogs.brighton.ac.uk/elearning/2012/05/03/reverse-learning-a-structured-approach-to-blended-learning-bhavik-patel-pabs/)
Coffield, F. et al. (2004). Learning styles and pedagogy in post-16 learning: A systematic and critical review. The Learning and Skills Research Centre

Feeding back on feedback: involving students in decisions about the timing and method of feedback through an expanded use of the TESTA methodology. An example from Physiotherapy

Juliet Eve and Dr Fiona Handley, Centre for Learning and Teaching

The project specifically explores key areas in current debates about HE learning, teaching and assessment. Assessment and feedback practices have come under increasing scrutiny in recent years, in part because there is growing recognition that assessment drives students’ learning (e.g. Rowntree, 1987) and also in response to concerns raised by the National Student Survey. A prominent theme of this work has been to examine assessment practice at course level (e.g. TESTA (www.testa.ac.uk) but there has been less emphasis on considering feedback practices in the same way. This session is based on research that extended the established TESTA methodology to include a greater emphasis on student involvement in decisions about feedback, and a focus on the role emotion plays in how students act on feedback. Taking a physiotherapy undergraduate course as its focus, the project used an assessment ‘audit’, including interviews with the teaching team, student focus-groups and a student questionnaire, to identify potential enhancements to assessment and feedback practice, and to pilot ways of involving students in decisions about how feedback was provided. The findings present a holistic picture of the assessment and feedback regime for one course, and explore ways to involve students in decision-making about timing and format of feedback. The approach tested in the research can be adopted by other course-teams wishing to explore assessment and feedback at a whole course level. The findings will also be of interest to all those who wish to gain a better understanding of how students engage with feedback and the effects of emotion on engagement

Background references:
TESTA: www.testa.ac.uk

Moving on and moving up: addressing the academic and personal challenges of moving from an FE Foundation Degree to a University top up degree

Rachael Carden, Brighton Business School

Changes in educational venue and level present academic, personal and social challenges for all learners. Much has been written about transitions between primary and secondary school, and sixth form (or equivalent) on to traditional first-year degree programmes. However, less research
has examined the experience of students progressing from foundation degree courses at Further Education Colleges (FECs) to join third-year students on degree courses as part of a BA/BSc top-up programme. This session is based on an investigation of the factors that help or hinder successful transition from a foundation degree in Business at an FE College to a top-up Business degree at the University of Brighton. The session will present the findings of a small-scale case-study which examined the academic, personal and social transitional and induction experiences of students moving from a Foundation degree in Business at City College Brighton and Hove, to a Top-up degree at the Brighton Business School. The research was designed to analyse and evaluate procedures at the two institutions to identify potential improvements in transition for future students. The session will be of interest to all whose work involves supporting ‘top-up’ students.

**Background References:**


**Pedagogies for Peace: Higher Education in situations of conflict**

Dr Juliet Millican, Community University Partnership Programme

This session presents the results drawn from a sabbatical period spent examining the role of higher education institutions in conflict, post-conflict or contested environments. It will focus explicitly on the pedagogic implications of different approaches that have been taken to curriculum development, learning and teaching in challenging contexts that contribute to either capacity-building in the period following conflict, or to conflict analysis, mediation and peacebuilding. It will also provide opportunities to debate issues such as the responsibility of a university in times of ethnic or civil conflict, and its influence on the attitudes and values of those learning within it.

The research, funded by the University of Brighton sabbatical scheme, has been influenced by CUPP’s experience in community engagement and the growing importance of engagement to the sector as a whole. It included visits to and discussions with academics and students in Bradford, Belfast, Birzeit (Palestine) Bosnia and Burma as well as skype interviews with those working in Nigeria, Rwanda and Sierra Leone.

The research methodology has included individual interviews and the collection of case studies that will be built into an edited book with chapters written by academics on individual and institutional roles in research and policy development as well as teaching and learning. Findings include the importance of experiential learning and the impact of first-hand experience, as well as learning from different policies regarding inclusion.

The importance of this work is in the transferability of the responses recorded, despite differences between culture and the nature of conflict. Civil conflict is one of the key challenges of the 21st century and academics in different parts of the world are realising they have a duty to respond...
while being unsure of the implications of this. The publication resulting from this research aims to share some of these experiences with others working in the field.

**Background References:**

**Parallel sessions 2**

**How well do students understand the distinction between grade boundaries and what can they realistically expect in terms of ‘steering’ to ‘hop’ between boundaries?**

Dr Dipak Sarker, School of Pharmacy and Biomolecular Sciences

It is common to hear students say “I worked really hard and spent a lot of time on this assignment, but I still only got a really low mark for it.” The disappointment of this experience leads many to question the purpose of “all this assessment”.

Often their concern to achieve ‘high grades’ has been shaped by the students’ experience of secondary education, and especially by a widespread belief that high grades are required ‘to get a job’. However, recent evidence suggests this is not universally true (1) and potential employers look for key skills (2), such as problem-solving, numeracy and higher level communication skills. Assessment in HE aims to benchmark a student’s development of these and diverse other complex attributes (3, 4). But if students fail to understand this – believing instead that effort and time are the key criteria - it becomes difficult for them to demonstrate the expected attributes. The starting point for this research, therefore, is that students frequently want (or expect) to achieve a high grade (5) without being able to pinpoint what merits this (anecdotal).

The research, which is work-in-progress, involves data based on surveys conducted with students at levels 6 (BSc final year) and 7 (MSc). (The surveys were carried out by level 7 professional degree students.)

The data indicate that while many students were able to demonstrate they were familiar with and could recall a comprehensive knowledge ‘base’, they did not always have the ability to engage with higher-level thinking and scenario problem-solving (3, 6, 7).

The session will provide opportunities to discuss the implications of this innovative work for assessment practices and student expectations in HE (4).

**Background references:**
The impact of animated learning resources on student engagement, achievement and academic performance

Dr Jacqueline Elsom, School of Pharmacy and Biomolecular Science

Over the past two years I have developed a range of animated films that cover key molecular and cellular events in human biochemistry. Students have told me many times that they don't like this subject area as they find it too hard. In my experience at Brighton I have found that the relative complexity of the biochemical mechanisms we discuss along with the difficulty in visualising events at the molecular level can be partly addressed by an interactive and image based delivery of the topic. However, experience has also taught me that for some students, concepts that they seemed to follow well during lectures somehow get confused later during their independent study. Guided by my students my response was to develop a series of resources using Camtasia and PowerPoint animations to provide additional audio-visual support.

The outcome has been increased student engagement, enjoyment and academic performance as demonstrated in student feedback and also through statistical analysis of their assessment performance. Interestingly the resources have been able to support a variety of diverse learning needs and thus enhance inclusive teaching practice.

This session provides opportunities to consider how such resources can be prepared and hosted along with the analysis of impact on academic performance. This session is aimed to at those thinking of using Camtasia to develop resources in the future and to discuss ideas and share practice amongst those who already do.

The Peer Proofreading Service: Findings from the pilot project

Nancy Carter, Humanities and Sarah Herbert, Student Services

During the academic year 2014-15, members of Student Services, The Centre for Learning and Teaching and The Brighton Language Institute jointly introduced a one-year, pilot peer-proofreading service (2014-2015) for students whose first language is not English. This was designed to run alongside the existing writing advisory service (WAS).

The project aimed to support students' writing accuracy through increased awareness of spelling and grammar. It also offered student volunteers the opportunity to develop their own skills and be part of a community of practice. The project was informed by the university's Learning and Teaching strategy, and The Student Retention and Success Framework, which encouraged the development of peer learning and additional support for international students.

To inform the evaluation of the pilot, data were gathered via online questionnaires, followed by student, staff and volunteer focus-groups. An interim report was presented to the July Teaching
Enhancing Higher Education Conference Programme 2016

and Learning conference and the audience for that presentation strongly supported the continuation of the service. This response, combined with all the other positive feedback from the evaluative research has ensured that the service continues. This session will provide an overview of the service, present the outcomes of the evaluative research, ensure that participants are fully aware of the benefits the service offers to students and provide them with opportunities to discuss these. It will be of interest to all those who work with students whose first language is not English or have an interest in the improvement of students’ writing.

**Background references:**

**An evolving ‘pragmatic’ research methodology for solving real problems in education: investigating how to use technology to enhance engagement in lectures**

Trevor Nesbit, Brighton Business School
Research suggests that increasing student engagement in lectures can enhance learning. This session is based on a research project, begun in 2010, that examines the use of personally-owned technologies (for example applications on smartphones) to increase student engagement in large lectures. The research adopts a ‘pragmatic’ methodology which aims to “solve real problems” as opposed to “developing solutions in search of problems”. The session will provide opportunities to consider how the research process has evolved as a result of this pragmatic approach.
The impetus for this research arose when I moved from a New Zealand Polytechnic Institute of Technology, where a class of 40 students was considered ‘large’, to a New Zealand University, where lectures involving 150-300 undergraduates are relatively common. The challenge in these new circumstances was to find ways to maintain my commitment to interactive, engaging teaching. The different phases of the research have included a pilot study, interviews with lecturers, surveys of students, interviews with learning advisers and student focus groups. As these different phases illustrate, the project has involved a combination of qualitative and quantitative data, generated by diverse means. In the session, there will be opportunities to discuss the relations between a mixed methodology founded on pragmatism and the evolving, multi-faceted nature of the research. The aim is to demonstrate how pragmatism-based methodologies and a framework of “solving real problems” are transferable to other research involving the use of technology in education and can provide a starting point for new research projects in this area.

**Background references:**

Nesbit, T., O’Steen, B. and Bell T. (2015). Use of Smart Phone Applications and Purple Shirts to Enhance Student Engagement in Large Lectures?. Proceedings the 28th Annual Conference of Computing and Information Technology Research and Education New Zealand, Queenstown, October 2015.


Parallel sessions 3
How can supervisors advise students about what to expect in their doctoral examination and viva?

Professor Gina Wisker, Centre for Learning and Teaching

Globally, increasing numbers of doctoral students are preparing for examination, but to students and their supervisors, the doctoral examination process (of the written thesis and the viva) can sometimes seem a mystery. Longstanding and more recent research reveals that examiners tend to have certain expectations they use to identify a thesis that should pass, and one that is more marginal. They also follow certain processes in examining a thesis. This session is based on research that extends our knowledge of these expectations and processes. It will therefore be of interest and value to supervisors, postgraduate-students and examiners.

Building on earlier research into examiners’ expectations and processes (Kiley and Mullins, 2002), recent interviews with doctoral examiners, including those who examine creative work (2012-15, Wisker and Kiley, Wisker and Robinson), asked four main questions:

What do examiners say they are looking for in successful PhD theses which make a contribution to knowledge?
How do examiners go about reading and examining a thesis?
Do examiners cross conceptual thresholds when examining theses?
How do they examine creative work?

The examiners’ responses revealed both their examination processes and their expectations of good and marginal theses, including creative work. It is particularly notable that the participants described the moments and stages where they recognise a thesis that provides evidence of a sound contribution to knowledge, originality, coherence, and potential for publication.

Background references:
Research-informed teaching and learning: The example of the Solar Cooker Experiment

Dr Ioannis S Pantelidis, School of Sport and Service Management

This session provides opportunities to consider how we can design activities that enable students to engage with current research in the discipline, and perhaps also have other educational benefits. The Solar Cooker Experiment is a research project that utilizes parabolic mirrors to cook food items. We conduct sensory evaluation to measure perceptions of the taste, smell and appearance of food items cooked on the solar cooker compared with those cooked by traditional methods. This research has implications for consumer behaviour, CO2 emissions and energy wastage reduction. It also provides the opportunity to explore and understand consumer cultures in the transition from a fast-food to a slow-food philosophy. This research formed the basis for teaching activities that provide a ‘hands-on’ experience for 95 final-year undergraduate students. The students build their own solar cookers. Then in focus groups, they discuss the implications, benefits and disadvantages of solar-cooker technology, and also perceptions of technology-acceptance in developed countries such as the UK. As well as enabling them to engage with current research, this activity provides opportunities for students to develop team-work skills and fosters collaborative working. Subsequently, we conducted 15 focus-group interviews to gauge understanding of the research and attitudes towards technology-change

During this session, participants will have the opportunity to build solar-cookers, consider the findings from the focus-groups and discuss how they could bring current research into ‘the classroom’.

**Background references:**


Bungaroosh: a different approach to research in education

Catherine Parfitt, Centre for Learning and Teaching

Bungaroosh is a building technique that is rarely seen outside the Brighton area. It utilises an assortment of readily available materials such as flint, pebbles and broken bricks, which are mixed in with a lime mortar to create “breathing” walls. Using bungaroosh as inspiration, this session will explore one educational researcher’s journey and will question the desirability of education research that fits neatly into a rigid methodological framework. If the process of inquiry is about binding together research (knowing) and practice (doing) (John Dewey, cited in Morgan, 2013),
practitioners in education are ideally placed to lead these processes. However, practitioners who are novice researchers in education often encounter difficult dilemmas, and find themselves becoming a ‘magpie’ researcher: picking up scraps of methodologies and struggling to choose the ‘right’ one. Traditional research methods tend to be presented (or at least perceived) as binaries—qualitative vs quantitative, subjective vs objective, scientific vs humanistic (Niglas, 2010) and practitioner/researchers may feel that these methods fail to represent the complexity of the social world and, within that, education. In this session, we will use a narrative, story-telling approach to identify a ‘third’ way, or mixed-method paradigm, which aims to question the preconceptions inherent in other methodologies (Bean, 2011). In this bungarooosh paradigm, which pragmatically adopts combinations of methods that best fit the inquiry in its local context (Creswell, 2011), research can be an organic process driven by practice and the desire to generate new ways of understanding educational issues, rather than viewed as lacking in rigour.

**Background references:**

**Learning Analytics: what questions will improve learning and teaching?**

Dr Barbara Newland, Dr Fiona Handley, Centre for Learning and Teaching and Dr Katie Piatt, Information Services

Learning analytics enables students and academics to compare levels of engagement in learning activities with previous levels of engagement, and individual performance in assessment with the rest of the cohort. The data may be used to predict future levels of engagement in learning. Learning analytics (LA) is defined as the “field associated with deciphering trends and patterns from educational big data, or huge sets of student-related data, to further the advancement of a personalized, supportive system of higher education” (Johnson et al, 2013). LA encompasses a wide range of perspectives so Wagner et al (2015) have recommended the use of the following definitions:

- Learning Analytics - Best way to teach and learn
- Learner Analytics - Best way to support students
- Organizational Analytics - Best way to operate a college

This session focuses on Wagner’s definition of learning analytics and will provide an overview of the current developments in LA in HE learning and teaching in the UK and abroad. Internationally, the Predictive Analytics Framework (PAR) is a multi-institutional project which “enables analyses of 2 million de-identified student records and more than 20 million course level records to look for patterns that can warn of risks before problems emerge” (PAR, 2015). The Society for Learning Analytics Research (SOLAR) is an inter-disciplinary network of leading international researchers who are exploring the role and impact of analytics on teaching, learning, training and development. The ECAR report considers student opinions about data collection for LA and their interest level in early alert and intervention notifications to students (ECAR, 2015).
However, recent reports by the Heads of eLearning Forum (Newland et al, 2015) and JISC found that the UK tertiary education sector is still at a very early stage in its adoption of LA (JISC, 2014). Ethical and data security issues with LA have been considered in the Open University student data policy (Open University, 2014) and the JISC code of practice (Sclater, 2015). There will be an opportunity to see the work undertaken so far at Brighton to develop LA.

This presentation will explore the implications of these current developments for work at the University of Brighton. An important consideration is to “Ask good questions; use good data” (Oblinger 2012). Therefore the discussion will provide participants with opportunities to contribute some ‘good questions’ which LA at Brighton could attempt to answer. For example, a student may ask “How much am I engaging online compared to others in my cohort?” or “How does my grade compared to others in my cohort with similar A level points?”

**Background references:**

ECAR, (2015), Analytics in Higher Education


Oblinger, D, 2012, Analytics: What We're Hearing [http://www.educause.edu/ero/article/analytics-what-were-hearing](http://www.educause.edu/ero/article/analytics-what-were-hearing)


Predictive Analytics Framework (PAR) [http://www.parframework.org](http://www.parframework.org)

Sclater, N. (2014) Learning Analytics: the current state of play in UK higher and further education. Jisc. [http://repository.jisc.ac.uk/5657/1/Learning_analytics_report.pdf](http://repository.jisc.ac.uk/5657/1/Learning_analytics_report.pdf)
