

Event Report

Research-Teaching Linkages: Enhancing Life Scientists' Graduate Attributes

Thursday 28th February 2008, Glasgow Caledonian University

This one-day was organised by Professor Kevan Gartland, Dean of Life Sciences, Glasgow Caledonian University with support from the Centre for Bioscience. The event included a mixture of presentations, opportunities for discussion and a swapshop element to allow individuals to share and hear experiences all on the topic of assessment as it relates to the learning process. The day began with a welcome by Professor Mike Smith, PVC Research at Glasgow Caledonian University.



'a useful & informative day, generating some novel ideas to try'

'Had a great time, some very thought-provoking talks and discussions'

'Interesting, informative, and good use of time.'

Personal reflections on research-teaching linkages - Ed Wood, Centre for Bioscience explored the bioscience tradition of introducing students to the origin of current facts (and the notion 'facts' may change), experimental techniques, classic experiments and the interpretation of experiments. He went on to discuss the importance of today's students learning 'how we know what we know' as well as 'what we know'.

Fostering a Questioning Attitude in 1st Year Students – Maria Chamberlain, University of Edinburgh, provided a thought-provoking talk surrounding various ways in which they promote enquiry by students and her underlying philosophy of encouraging and rewarding students for asking good questions. Maria described practicals, tutorials, project work and exams designed to engender a questioning and critical approach to learning and data inspection.

Research-Teaching Linkages: staff perceptions activity – Kevan Gartland and David Bell, Glasgow Caledonian University, made use of the University's newly acquired personal response 'clicker' system to gather perceptions from the audience of how Research-Teaching Linkages inform Life Sciences Graduate Attributes. The data gathered will be compared with responses collected via structured interviews undertaken with key staff from 10 Universities & HEIs.



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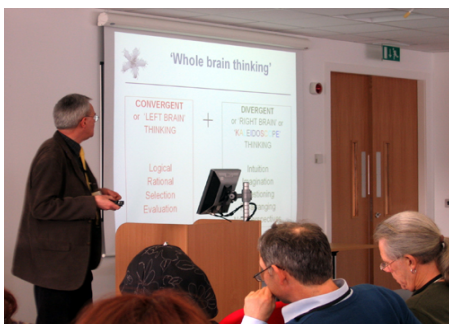
The Research Teaching Symbiosis - Kay Yeoman, University of East Anglia.

Kay began by considering definitions of research-led teaching and proposed the idea of a mutual symbiosis between teaching and research. She went on to share details of two aspects of her work: a research skills module and a new science communication module.



The research skills module is intended as a bridge between taught, prescriptive practical sessions in the first two years of the undergraduate degree programme and the final year research project. It is designed to ensure basic technical, analytical and writing skills have been acquired prior to the final year project. Kay described how she had investigated the impact of the module through the use of pre and post-questionnaires. Findings indicated students gained practical and transferable skills through the module, and increased in confidence.

Research-led Teaching and the Promotion of Graduates' Creative Potential, David Adams, Director, Centre for Bioscience & University of Leeds



David shared his experiences of encouraging students to explore their creative potential and highlighted a creativity and research-led teaching web resource he has compiled. He introduced various techniques and strategies for encouraging creative thinking which he has found successful in working with groups of final year and Masters level students. David encouraged individuals to provide him with feedback on his web site and to make use of it with their own students.

Aiming University Learning at Work (AUL@W): Biosciences Findings Progress So Far - Nuala Toman and Douglas Forbes, Glasgow Caledonian University

Nuala reported on preliminary findings of a longitudinal study of University-to-Employment Transitions, which includes the experience of Biosciences Final Years



(FY)/Graduands (Grads) from Glasgow Caledonian University and the Universities of Glasgow and St Andrews.

The study indicates a positive impact of Work Related Learning experience within bioscience degrees. While bioscience students fared better than those from other disciplines the study has also highlighted relatively low numbers of students had secured a graduate job by the spring before graduation and the researchers suggest this points towards a need to manage expectations regarding graduate employment and support students through the transition period.

Students as Research Proposers and Funders - Phil Collier, University of Abertay, Dundee

Phil gave an overview of the Abertay biotechnology project model, which consists of three elements: two techniques and skills modules and an honours project. He emphasised the overall aim of the programme is to produce graduates who are 'Confident thinkers'. Through the three elements students gain research planning & development skills, become aware of research ethics and health & safety and are hopefully instilled with a critical awareness of the scientific process and an ability to develop novel scientific approaches to address specific problems.

Enhancing Life Sciences Graduate Attributes

Kevan Gartland, Glasgow Caledonian University

Kevan provided a summary of the day and presented some of the findings from the project work he has undertaken examining how institutional & programme level links between research strategies and activities support the student learning experience in ways that can enhance learner achievement of research-type attributes. Information collected indicates staff believe the three most important graduate attributes (from those classed as research related) to be:

- self-confident achievers
- evaluation, critical appraisal and synthesis of novel concepts
- flexible, independent & team working skills

Kevan went on to discuss the emerging outcomes from his study and concluded by highlighting a number of additional examples of good practice from across the biosciences.