Enhancement Themes: Research-Teaching Linkages: Enhancing Graduate Attributes

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Summary

This paper gives a broad outline of the Research-Teaching Linkages Enhancement Theme and the number of associated activities the Scottish sector as a whole are taking forward to progress the work of the theme. A broad and inclusive definition of research has been adopted and the theme will focus on taught programmes throughout the continuum of the undergraduate and postgraduate programme. The central aim of the theme is to consider how best at institutional and programme level, links between research strategies and activities support the student learning experience in ways that enhance learner achievement of research-type attributes.

Background

1 The Scottish Enhancement Theme initiative is one part of the Quality Enhancement Framework (George Gordon in his paper provides a detailed account of the framework and the themes in general). The themes aim to enhance the student learning experience in Scottish higher education by identifying specific areas (themes) for development. The themes encourage academic and support staff and students to share current good practice and collectively generate ideas and models as a sector for innovation in learning and teaching.

2 Each theme is by necessity time limited and it is not the purpose of the theme to address all issues associated with a particular topic, nor to find the 'concluding answers' to these issues. Within HEIs, enhancement is an ongoing cycle of learning from and developing/evolving practice to which the themes can provide a key input and a significant catalytic effect.

3 When delivering theme outcomes, the relevant theme steering committees have in mind the need for outcomes to be sufficiently general for further and specific application across the Scottish sector and the diversity of institutions and subjects represented and for theme outcomes to be practical, usable and of use to the practitioner.

Research-Teaching Linkages: Enhancing Graduate Attributes Theme

4 Work on the Research-Teaching Linkages theme began in July 2006 with the appointment of the sector nominated steering committee, chaired by Prof. Andrea Nolan, Vice-Principal Learning and Teaching, University of Glasgow. (Further details on http://www.enhancementthemes.ac.uk).

5 A period of scoping the theme was conducted prior to this from November 2005 to January 2006. The scoping paper can be accessed at

http://www.enhancementthemes.ac.uk/themes/ResearchTeaching/default.asp). In light of the scoping, the Scottish Higher Education Enhancement Committee confirmed that work on the theme should commence in 2006-07 and that the theme would:

- adopt a broad, inclusive definition of research to embrace: practice/consultancy led research, research of local economic significance, contributions to the work of associated research institutes or other universities and, various types of practice-based and applied research including performances; creative works; and industrial or professional secondments. In so doing, the theme should also consider Boyers four scholarships of; discovery, integration, application and teaching
- focus on the student learning experience (taught programmes at all levels and all modes to SCQF 11), institutional processes and, the development of '*graduate attributes associated with research*'

The Theme will be taken forward during 2007 with the aim of producing outcomes for the sector in spring 2008. Following on from this there will be a coordinated programme of activities to support the sector in consideration and implementation of the outcomes

6 The focus of the Research-Teaching Linkages theme is on taught programmes. The theme will look at how best and at institutional and programme level, links between research strategies and activities can support the student learning experience in ways that can enhance learner achievement of research-type attributes. For the purpose of the theme, the types of attributes and skills that the work will focus on are described below.

At undergraduate level:

- critical understanding
- informed by current developments in the subject
- an awareness of the provisional nature of knowledge, how knowledge is created, advanced and renewed, and the excitement of changing knowledge
- the ability to identify and analyse problems and issues and to formulate, evaluate and apply evidence based solutions and arguments
- an ability to apply a systematic and critical assessment of complex problems and issues
- an ability to deploy techniques of analysis and enquiry
- familiarity with advanced techniques and skills
- originality and creativity in formulating, evaluating and applying evidence-based solutions and arguments
- an understanding of the need for a high level of ethical, social, cultural, environmental and wider professional conduct

And at Master's level:

- conceptual understanding that enables critical evaluation of current research and advanced scholarship
- originality in the application of knowledge
- the ability to deal with complex issues and make sound judgments in the absence of complete data.

7 It is important to note that the Theme is concerned with the progressive development of these types of high level skills and attributes (as described above) throughout the continuum of the undergraduate and postgraduate programme i.e. from commencement of the undergraduate learning.

8 The Theme will focus on ways in which links with research type activities can help support the achievement of these attributes through utilising research-type activities to enhance:

the curriculum in terms of outcomes;
teaching, learning and assessment activities that promote achievement of these outcomes;
the learning environment.

9 All Scottish Higher Educational Institutions have nominated an institutional contact whose role will be to act as conduit between the steering committee and their individual institution. The institutional contact will also have the important and fundamental role of coordinating institutional reflective discussions on Research-Teaching Linkages.

Research-Teaching Linkages strands

10 The Research-Teaching Linkages Theme has two strands of work. In the first instance a general strand comprising an ongoing sector-wide discussion within and between Higher Education Institutions (HEIs) involving staff and students reflecting on, and exploring Research-Teaching Linkages and how they can be maximised to enhance the achievement of graduate attributes. Institutions will be given a sum of money to allow this work to take place and it will in the main be coordinated by the institutional contacts. A project team (Professor Ray Land and Professor George Gordon, University of Strathclyde) have been commissioned to help support institutional reflections and to draw work together at the end of the theme. The project directors will also write a policy paper that will draw together and focus on the generic policy level issues and challenges identified in institutional discussions including, incentives and disincentives/ institutional drivers & constraints. This paper will seek ways forward and make recommendations based on institutional discussions.

11 This overarching sector-wide discussion strand will run simultaneously with a secondary discipline level strand which will focus on, the sharing of and developing on, current and emerging practice at the discipline level. For these purposes, subjects have been grouped into 9 broad areas of generally cognate subjects as follows:

Physical sciences encompassing: chemistry, physics, earth sciences, astronomy and related areas.
Information and Mathematical sciences encompassing: computing science, mathematics, statistics and related areas.
Arts and Social Sciences encompassing: education, social work and community education, languages, history, geography, philosophy, politics, law, psychology and related areas.
Health and Social care encompassing: nursing, occupational therapy, physiotherapy, podiatric medicine and surgery, radiography and related areas.
Business and Management encompassing: accountancy and finance, business and business management.
Life sciences encompassing: Anatomy, Aquatic Bioscience, Biochemistry, Biomedical Sciences, Biotechnology, Genetics, Immunology, Microbiology, Molecular & Cellular Biology, Neuroscience, Parasitology, Pharmacology, Physiology, Sports Science, Zoology and related areas.
Creative and Cultural Practice encompassing: music, drama, drawing and painting, animation, film & TV, graphic design, photography, design and applied arts, sculpture, fine art and related areas.
Medicine, Dentistry and Veterinary Medicine
Engineering and the Built Environment encompassing: mechanical, electrical and electronic, chemical, and aeronautical engineering, architecture, landscape, planning, construction, surveying and related areas.

11 The groupings identified above are simply an organisational structure designed to help in the process of identifying, sharing and building. It is intended, and indeed it is important, that throughout the duration of the theme there will be sharing and building on ideas and practices across these groupings.

12 It is important to note that the aim of the discipline level projects is to identify, share and build on good and innovative practice in utilising research-teaching linkages to enhance the achievement of graduate attributes at the subject level. This will include for example:

- approaches to identifying and defining the 'high level' 'graduate type attributes desired and valued at discipline level (e.g learning from employer's feedback, guidance from professional bodies and students);
- approaches in making best use of research/professional practice to enhance the achievement of such attributes. For example, using research/consultancy type activities with employers as a means of informing the design and delivery of programmes
- how course teams go about structuring the programme/environment to make best use of research-teaching linkages?
- how best to use research-teaching linkages to inform the development of a learning experience where research type processes are considered as part of the process of learning rather than content. For example: engaging students in collaborative team based enquiries or involving students in a community of researchers and
- examples of how this is expressed/conducted within courses/strategies/operational plans?

13 Nine project teams have been commissioned to undertake each of the subject projects. Details of the teams can be found on the enhancement theme website. (http://www.enhancementthemes.ac.uk/themes/ResearchTeaching/activities.asp)

14 Each of the project teams over the course of the next twelve months will conduct a a **discipline** workshop on Research-Teaching Linkages: enhancing graduate attributes. These events will be open to the higher education sector and will be advertised on the Enhancement Theme website. Throughout this time the theme will endeavour to make best use of national and international examples of practice (including HEA Subject centres and CETLs for example) and expertise. Professor Angela Brew and Dr. Simon Barrie (University of Sydney) have both agreed to be international advisors for the themes and Professor Alan Jenkins having presented at the Enhancement Theme conference in March 2007 will continue to work with the theme.

15 All project work will be completed by March 2008 with outcomes available July 2008. Thereafter there will be a period of dissemination and supported consideration with the sector running to December 2008.

16 We would like to invite colleagues nationally and internationally to be part of the work of the theme by visiting our website and being in touch with either myself (c.carney@admin.gla.ac.uk) or any of the steering committee members, institutional contacts or project directors.