

Institutional Discussion on Research-Teaching Linkages: Enhancing Graduate Attributes

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Context

Glasgow Caledonian University (GCU) is the fourth largest university in Scotland with over 15,000 students studying in seven academic schools¹ over the areas of business, health and science and technology². Each school is comprised of a number of academic divisions and the schools themselves operate with considerable autonomy within the institution. Each school has a role entitled 'Head of Learning and Teaching Quality' and this group were identified as key contacts for the project as we sought to develop a snapshot of institutional practice.

As a post-1992 University, GCU is not a traditional research-led institution, and whilst research income and capacity is increasing, the research profile of the University is focused on applied research³. This research profile complements the practice based focus of many degree programmes accredited by professional bodies in the areas of business, healthcare, nursing and engineering (and others).

Whilst the focus of internal activities carried out under this theme was to generate a snapshot of activity at across the University, we were explicitly interested in how the theme topic could be embedded in key strategic initiatives and considering some of the issues of particular interest to GCU such as the relevance of research-teaching linkages to our practice focused programmes and the tension it might generate.

In its initial work, the project adopted an interview based approach to collecting data, focused at School level. Interviews were conducted with HLTQs though in some cases additional staff were also present for interview (Associate Dean Research, eLearning specialist, Programme Organisers). The initial interviews utilised the framing questions supplied by Gordon and Land. These questions allowed us to examine how a focus on Research-Teaching linkages fits within the Quality processes throughout the university – from institution to course level. Consulting individual Schools has also enabled us to develop an understanding of the specific circumstances of each School, and how our different discipline groups interpret the concept of Research-Teaching Linkages.

The Theme and Current Strategic Activities

This timing of this theme has coincided with a key period of strategic review within the University. After restructuring of the University executive in AY 2006-7, a number of key strategic documents are now scheduled for review. Key amongst these is the Institutional Learning Teaching and Assessment Strategy (LTAS). The new LTAS strategy (currently undergoing final revision pending approval by the University senate) has been re-written in AY 2007-8 following an institution-wide consultation exercise led by the Caledonian Academy. Preparation for the LTAS review included a Scoping study conducted by Prof. George Gordon which had highlighted the importance of graduate attributes and the new Strategy

¹ The seven schools are Caledonian Business School, School of Nursing, Midwifery and Community Health, School of Life Sciences, School of Built and Natural Environment, School of Health and Social Care, School of Engineering and Computing, and School of Law and Social Sciences

² <http://www.gcal.ac.uk/the-university/about/studyoptions.html>

³ <http://www.gcal.ac.uk/business/research/index.html>

recognises the importance of Research-Teaching Linkages in the development of graduate attributes. The preparation of the LTAS review is part of a wider range of research and development activities being carried out within the Caledonian Academy with a broad aim of improving the learner experience and teaching and learning provision at GCU. Specific activities include the development of a CPD framework, the establishment of a scholars and associates scheme which values and nurtures scholarly pedagogic research within the Schools, SHEFC funded initiatives on employability and progression/retention, and research examining the development of new skills and expertise as graduates move into the workplace.

LTAS Review

The LTAS is structured around three goals which together seek to ‘*create a bold, innovative and distinctive approach to the creation of lifelong learners with a global outlook*’.

The (draft) Learning Teaching and Assessment Strategy implicitly recognises the importance of graduate attributes as a key component of its First Goal (of three): **to equip students with the skills to operate as independent lifelong learners**, identifying one strand of activity towards achieving this goal as:

To refine the skills set for independent lifelong learning to be included within the LTAS with reference to existing University employability skills, skills drawn from the skills for Scotland strategy, skills identified by the current QAA enhancement theme, and by skills identified by individual professional and statutory bodies.

It is hoped that the goal will be achieved through the adoption of an approach to teaching based on a cycle of ‘Ask, Learn, Share’ where students are encouraged to see the relevance of their study and share their own learning experience with their peers. Another key strategic document currently under review is the i-Learn Framework. This defines a forward looking approach to skills development whose goal is to integrate a range of academic, information and digital literacy skills across the curriculum. Like the LTAS the i-Learn framework makes direct reference to the graduate attributes identified by the QAA.

Current Practice

As stated previously, Glasgow Caledonian University is a diverse institution covering a wide range of disciplines. The concept of Research-teaching linkages obviously varies between staff in different disciplines, specifically those disciplines which are more practice focused. Adopting the typology of Griffiths (2004)⁴, we can consider teaching practice at GCU under four headings: research-led, research oriented, research-based, and research-informed.

Research-led.

To shape the curriculum dependent on the research expertise of staff has long been the model adopted in pure science and the humanities and within appropriate disciplines at GCU this is also the case. Programme design typically involves a multidisciplinary team, drawn from those with appropriate expertise within Schools and where possible, modules are led by academics who are actively researching in the field, especially at levels three and four of UG courses and in taught PG programmes. This structuring of the curriculum is enshrined in the Quality Assurance documentation, where in-school and institution-wide processes ensure that Research-Teaching linkages are implicitly considered. Enhancement Led Internal

⁴ Griffiths, R., (2004) Knowledge production and the Research Teaching Nexus: the case of the built environment disciplines. *Studies in Higher Education*

Subject Review (ELISR) carried out by the University Quality Office has consistently recognised the linkage of Research and Teaching in this way.

Professional body accreditation of programmes in practice-based courses guides overall curriculum design with direct input from external experts who ensure that courses remain relevant and acknowledge current research in the field.

The benefits of research-led teaching are clear, for example in one subject where there is variation in research-teaching coupling across the module portfolio, one active researcher was so successful in engaging his students that he found his dissertation topics oversubscribed.

Research-oriented

With a strong commitment to providing 'relevant' curricula to equip students for their working career comes a recognition within the university that it is important to foster a research ethos, and develop research skills in the student cohort. Research methods form a key component (either integrated, or as discrete modules) of the great majority of programmes offered by the University.

Research-based

There is widespread adoption of inquiry based learning approaches in UG and PG programmes across all schools. For instance in the School of Nursing, Midwifery and Community Health, all programmes are based around inquiry based approaches and evidence based practice as students produce a portfolio representing their experience.

In Science and Engineering courses, a research based approach runs throughout the curriculum. For instance, in the School of Engineering and Computing, the local LTAS draws heavily on the Aalborg model for PBL.⁵ In engineering courses, students are provided first with fundamental principles, which then underpin the acquisition of design, analysis and evaluation skills, along with soft skills such as management and teamwork. In the School of the Built and Natural Environment, a vertical project runs, where students participate in the same piece of work throughout their degree in a project team made up from students in years 1 to 4. Final year students manage a team of students with a key goal having performed more junior roles in the same project in previous years. In Psychology, early years students act as experimental subjects for later years projects and gain assessment credit (5%) in a core module for writing up a lab report of their participation in this research project.

Across taught post-graduate degrees particularly, but also within undergraduate programmes, there is a strong commitment to student participation in the research activities of Schools, with student attendance at Research seminars, and the provision of student focused research events such as poster days, student conferences and student journals. Through the University's Graduate Centre, there is a commitment to foster a community of researchers and this extends beyond the core research community to activities which encourage non-research students (UG and PG) to turn their dissertations into published papers.

Research-informed

Within individual schools, pedagogic research is recognised through the provision of central funds ('LTAS money') which many Schools choose to use to enhance teaching and learning practice. Specific examples include the development of Kelpie software in the School of Engineering and Computing, and the Enhance programme which led to radical restructuring of the first year of study in the nursing curriculum to address the needs of their student cohort, based on contemporary pedagogic research in the area of professional and academic skills development. Glasgow Caledonian University was a partner in the recent SHEFC

⁵ <http://www.ucpbl.net/>

funded transformation project REAP (Re-Engineering Assessment Practices) and this has led to improvements to assessment processes in courses across the Caledonian Business School

The recent establishment of the Caledonian Academy provides a true focus for such activity within the university and is reflected in the third goal of the new draft LTAS: to develop and embed innovative learning and teaching based on sound research and scholarship (see below). Activities within the Caledonian Academy have already been outlined, but one key current initiative is to establish a Scholars and Associates scheme, whereby staff are encouraged and supported in conducting pedagogical research within their discipline. These staff will act as local champions of innovative and best teaching and learning practice, encouraging others in their Schools to take an academic approach to the design of teaching activities.

Issues, Thorny topics

Within our own institutional context, a number of key issues are still evident:

Research and practice based curricula

For several schools, the development of graduate attributes is an integral part of the degrees offered as courses are closely focused on preparing the student for professional practice. Indeed: “ the university has established a reputation for providing innovative, career focused programmes – currently 92% of our graduates seeking employment find work within six months of graduation⁶”. This is especially true in the Schools of Nursing Midwifery & Community Health, Health & Social Care, and Built & Natural Environment, where the great majority of students spend a significant portion of their time in the workplace, either interspersed throughout their studies, or in a single extended placement. Degree programmes in these schools are typically designed around preparing for and reflecting on these practical episodes, with curricula set by professional bodies. For courses in these disciplines there are inevitable tensions with respect to the extent to which research might underpin the curriculum, for instance: the curriculum coverage needed may not match staff core expertise, staff are recruited as expert practitioners rather than having followed a traditional route into academia. These practice-based programmes place particular focus on developing research skills and skills of critical self-evaluation with activities performed in the workplace.

Problems arising where teaching and research have become dislocated.

In some cases, local pressures have resulted in teaching and research becoming dislocated. This may occur for a number of reasons – for instance when only a few academics are RAE active or where topics which attract research funding are misaligned with the curriculum needs of a discipline. For instance, in the School of Nursing, Midwifery and Community Health, the great majority of discipline research is carried out within a research centre where the staff have no teaching responsibilities and are able to concentrate entirely on improving the RAE submission of the School. For teaching staff, a trimester teaching year (45 weeks) means teaching loads are abnormally high: providing a further barrier to maintaining a role which covers both research and teaching.

This dislocation between research and teaching is recognised as unsatisfactory and measures are being taken to re-establish the link where possible (such as through changes to recruitment policy). As the current RAE submission has just completed, the coming period may provide an appropriate opportunity to endeavour to re-establish researchers in teaching roles. A new appraisal process ‘Performance Annual Review’ has recently been introduced across the university, and it is anticipated that this will encourage teachers to do research and researchers to teach as it explicitly asks for evidence of how research informs teaching for the individual under review.

⁶ <http://www.gcal.ac.uk/the-university/about/>

Likely areas of further action

Ongoing development of the LTAS and iLearn framework will ensure that the development of graduate attributes remains central to the institutions mission. Once these strategies have been finalised and approved, local strategies will be formulated by each schools. These local strategies will become key operational documents and it will be important to embed strategies to develop the linkage of teaching and research more explicitly within these, and the associated quality documentation underpinning programme and module design, approval and review processes. Development of institutional strategy will be accompanied by institution-wide and local events which will maintain a focus on Research-Teaching Linkages.

As highlighted above, there is greater awareness of the importance of research-teaching linkages in the teaching community than in the research community. Research has much to gain from closer links with teaching and it is hoped that when the current Institutional Research Strategy is next reviewed, a stronger commitment to research-teaching linkages can be embedded.

Suggestions for further QAA activities

The timing of the publication of the Scottish Government's Skills for Scotland strategy⁷ was a little unfortunate as there is considerable potential overlap between the Graduate Attributes from this theme and those outlined within the Skills for Scotland strategy. We would welcome a clear statement of how Higher Education can engage with the Skills for Scotland strategy, particularly with regard to the alignment of the needs of local industry and public sector.

To address issues of dislocation of teaching and research, it would be helpful if QAA used its national status to lobby RCUK to consider how research grant allocation could recognise the potential value to teaching of research application. This is already seen in NSF grants in the USA and would address the issues of research and teaching becoming dislocated which were discussed in the previous section.

Similarly, moves to ease the pressure placed on researchers by the Research Assessment Exercise would be welcomed, perhaps through some recognition of the value of research-teaching linkage. Clearer routes for recognition of pedagogical research carried out within individual Schools would also be useful, as this valuable research activity is often not encouraged within Schools as it does not count towards a discipline's RAE submission.

⁷ <http://www.scotland.gov.uk/Resource/Doc/197204/0052752.pdf>