

Scottish Quality Enhancement Themes

Updated scoping study on a possible new topic theme on *Research-Teaching linkages*

Version and status: 13 March 2006. Revised version, incorporating findings from further scoping, for consideration by Scottish Higher Education Enhancement Committee.

Executive summary

- 1 This report summarises the outcomes from a consultation asking two broad questions:
 - should there be a topic theme around the subject of research-teaching linkages?
 - and if so, what are the key issues, and in what ways could a theme be helpful to the sector?

- 2 The report sets-out:
 - Key points from the consultation (para 3)
 - Recommendations (para 4 to 9)
 - Context and terms of reference (para 10)
 - The consultation process (para 11 to 13)
 - Points raised in the consultation (para 15 to 36)
 - Appendix A: Consultation starter paper
 - Appendix B: Consultation workshops (Sept and Nov 2005)
 - Appendix C: Comments by correspondence
 - Appendix D: Consultation workshops (Jan 2006)

- 3 Key points from the consultation:
 - there is considerable enthusiasm for a theme on the topic of research-teaching linkages; this recently re-affirmed by participants at workshops in January 2006
 - two distinct, but related strands of work are considered priorities: first, the student learning experience, considering graduate attributes, student learning activities, and the learning environment (para 15); second, institutional management and policies (para 16)
 - take a wide view and definition of what is meant by the terms 'research' (para 18) and 'scholarship' (para 20)
 - important to make and recognise distinctions, including concerning subject areas, research as a process and as content, and students' level of study (para 19)
 - the concept of scholarship, using Boyer's typology (discovery, integration, application and teaching) would be useful in making a theme inclusive for both institutions and individuals (para 20)
 - focus on taught students, considering all levels, and all modes of delivery (para 21)
 - learn from experience of working with QE themes to-date, in particular regarding definition of scope and timescale (para 24)
 - take account of other related work, in particular other QE themes and the work of the HE Academy (para 28)
 - start early and relatively slowly, taking a phased approach over a longer period (para 29)
 - consider what would be a useful and meaningful title for a theme (para 0)
 - consider a range of modes of working for a theme (para 32 to 35)
 - try to engage the research community (para 36)

Recommendation

- 4 SHEEC should consider initiation of a new topic theme around the subject of research-teaching linkages as a priority. Careful consideration should be given to the title, and the following are suggested for discussion: 'research-teaching linkages', 'research-informed-learning', 'research-oriented-learning', 'research, scholarship and learning', 'research-teaching nexus'.
- 5 The focus should be on the learning experience of students following taught programmes, considering all levels (SCQF 7 to 11) and all modes of engagement, including open and distance learning.
- 6 A theme should be structured around two distinct, but related strands:
 - student learning experience, considering how the student learning experience can benefit from research. This includes a number of dimensions that collectively contribute to development of graduate attributes associated with research: the curriculum in terms of specific learning outcomes; the teaching, learning and assessment activities that promote achievement of these outcomes; and the learning environment in the widest sense
 - institutional management, considering how institutions can organise and shape their activities in learning and teaching and in research to enhance these (research-oriented) aspects of the student learning experience.
- 7 A theme should start relatively slowly, and likely extend over a longer period compared to themes to date. Consideration should be given to delaying the start of other themes, possibly the theme Developing the Effective Learner, to firstly enable that theme to be informed by outcomes from the research-related theme, and secondly, to avoid overload on institutions.
- 8 A phased approach to working should be adopted. The first phase should be primarily 'finding-out'. For the student learning experience strand this could include an overview survey of existing reported work, and possibly an initial, carefully focussed survey of case studies in the Scottish sector. Useful outcomes could be a 'toolkit' type summary of reported effective practice. For the institutional management strand, this could include consultancy type interaction with individual institutions to identify the current position and needs and priorities. Following this first phase, a stock-taking and possibly further consultation should take place to inform the next phase(s).
- 9 A theme should:
 - take account of, and be linked to other topic themes, in particular the First Year, and the proposed theme Developing The Effective Learner
 - take account of ongoing work of, and potential support from the HE Academy.

Context and terms of reference

- 10 This consultation was initiated by QAA Scotland, as part of the Scottish QE Themes initiative. Development of the initial version of the 'Five year rolling plan' for the QE Themes had indicated interest in a possible theme around the topic of research-teaching linkages. However, there were concerns about potential overload on institutions. Accordingly a scoping study was initiated:
 - with a brief to look at priority issues facing the sector, and the breadth of potential topics
 - to report on key issues; the need for, and priority of a possible theme; and what type of theme would be most useful, considering focus, scope and types of activities

The consultation process

- 11 A discussion paper (Appendix A) was circulated to:
- Universities-Scotland Learning & Teaching Committee
 - Universities-Scotland Teaching Quality Forum
 - Universities-Scotland Research & Commercialisation Committee
 - the HE Academy.
- 12 Three discussion workshops took place in September and November 2005, involving 24 individuals from 18 Scottish HE institutions, plus officers from SFC, QAA, Universities-Scotland, and the HE Academy. Details are provided in Appendix B.
- 13 Institutions were invited to submit written comments. Three were received (Appendix C).
- 14 Two discussion workshops on the topic were included in the Third Annual Enhancement Themes working conference on 27 January 2006. A total of 27 individuals participated. Outcomes are provided in Appendix D.

Points highlighted in the consultation

- 15 Focus on the **student learning experience**. This strand should consider three dimensions and their alignment. Firstly, the curriculum in terms of intended learning outcomes and graduate attributes related to research. The following terms were considered indicative of these concerns: 'research-mindedness', 'intellectual curiosity' and 'research-orientation'. Such attributes were considered to enhance employability, and there was a view that these attributes take time to develop (see para 21). Secondly, the student learning experience, in terms of approaches to teaching, and hence learning activities to promote development of these graduate attributes. Besides developing these attributes, such approaches were considered important in terms of developing students' identities in the culture of their subject, and the nature of knowledge and its advancement in the subject. Approaches to learning could consider research as a learning style. Thirdly, the learning environment in the widest sense, physical, intellectual and ethos.
- 16 Focus on **institutional management and policies**, for learning and teaching, for research, and the interplay between them, 'the ways institutions do their business'.
- 17 The **two strands of focus are distinct, but related**. Institutional management can create an environment, culture and ethos to encourage and promote achievement of research-oriented learning outcomes. The significance of a research-active environment was discussed. Empirical evidence from institutional research suggests that this can be very significant, but is not essential, and that there is no intrinsic linkage between research activity and quality of learning. Research-oriented learning outcomes can be developed via scholarship mode, not necessarily requiring the teacher to be an active researcher. Institutions need to constitute effective linkages in policies, structures and practices that reflect their context and mission.
- 18 **Take a wide view and definition of what is meant by the term 'research'**, and avoid an over-focus on RAE-significant research. It should not presume that an academic has to be an active researcher, or be located in a research-active department or institution. It should include engagement by academic staff in scholarly and professional activities that keep them informed with advancing knowledge in the subject. 'Research' could include: practice/consultancy led research, research of local economic significance, contributions to the work of associated research institutes or other universities, various types of applied research.

- 19 There will be a need to **make and recognise distinctions**, including concerning:
- **subject areas** e.g. between hard sciences, social sciences and arts, including the distinctions compared to "conventional" research; research in art and performance may include concepts related to mastery and pushing at the edges of practice and performance
 - **research as a process** (developing new knowledge) compared to **research as content** (knowing the latest knowledge)
 - student's **level of study**
- 20 Issues of **language** are significant and problematic. There is strong **enthusiasm for the concept of scholarship**, as outlined by Ernest Boyer, considering four scholarships of discovery, integration, application and teaching. A theme could usefully seek to develop a framework for engaging with the topic, and unpacking the term 'research', that could reflect a wide range of institutional missions and individual roles and personal orientations to HE.
- 21 Focus on **taught students, all levels and all modes**. The types of intended learning outcomes and graduate attributes discussed above should be a characteristic of learning in HE, whatever the level of study, or mode of engagement. Like many attributes supporting employability, these outcomes can take time to develop, hence the importance of considering the early levels, SCQF 7-9 (HE years 1 to 3). Besides helping preparation for honours (SCQF 10), this also promotes employability for bachelor graduates (SCQF 9).
- 22 The needs of taught masters students (SCQF 11) should also be included. It would be important for a theme to consider all modes of student engagement, including in particular, open and distance learning students, who are not located within a physical HE environment.
- 23 The learning experience of students on research degree programmes e.g. PhDs should not be included within the scope of this theme. There is a need to constrain and define the boundaries of what would already be a potentially very wide theme. Additionally, other initiatives including those led by research councils, are currently considering this group of students. However graduate-teaching assistants could be considered in terms of their teaching-related roles. Ways of working with, or through them could include two dimensions:
- consideration of their (staff-related) roles in teaching and supporting students on taught programmes
 - their formation as potential academic staff of the future.
- 24 The theme **should be informed by pedagogic research** concerning how students learn, the impacts of different types of learning experiences, students' thinking styles, in particular regarding certainty of knowledge, and related to level of study. It should also consider subject distinctions concerning how different disciplines make research manifest to students e.g. in a laboratory, a book, a painting.
- 25 It is important that the theme should take an **evidence-based approach**, avoiding stereotypes and assumptions, and asking epistemological questions such as 'what do we know', 'how do we know?'. Following from this, there is a need to consider how to meaningfully evaluate impacts of actions related to research on the student learning experience.
- 26 **Learn from the literature**. There is a significant body of literature on the subject of research-teaching linkages. However there is a need to make the findings accessible to academic staff e.g. via a digest of the literature.

- 27 **Learn from QE themes to-date.** Reflection on experience of working with QE themes to date highlighted the importance of the following:
- clear definition of scope, including specific sub strands and phases
 - recognition of the time required for the start-up, and 'finding-out' phases
 - consideration of workload on the QE themes office and on respondents and key individuals within institutions.
- 28 **Take account of related work.** The definition of the scope, ways of working, and timescale of a theme should avoid duplication, and should seek to interact effectively with other related work, in particular the QE theme the First Year, the proposed QE Theme the Effective Learner, and the work and plans of the HE Academy.
- 29 **Timescale.** Following from the comments immediately above, a theme should start early and relatively slowly, and could extend for a relatively long period. This would allow the initial 'finding-out' phase to be completed in ways that would place a relatively low demand on institutions. Consideration should be given to possibly delaying one of the other themes, most likely Developing the Effective Learner.
- 30 **Title and perspectives of scope.** Considerable discussion took place regarding terminology and the title of a proposed theme. Terms such as 'research-teaching linkages' and 'research-led-teaching', do not fully reflect the potential of a theme, and could trigger unhelpful interpretations of the scope as being overly-focussed on institutions with missions that are strongly focussed on RAE-significant research. There is a need for a holistic title that is likely to be considered to be inclusive by the full range of institutions in the Scottish HE sector. There was a preference for an emphasis on learning rather than teaching, and on student-centred concerns rather than policy and procedures. Suggestions included: 'research-learning', 'research and learning', 'research orientation', 'research-oriented-learning', and 'research-informed-learning'.
- 31 There needs to be a distinction between subject (or discipline) based research and educational research e.g. regarding pedagogy. There was a strong consensus that a theme should be about subject research and student learning within subjects. But that this should relate to, and draw on findings from pedagogic research.
- 32 A **range of modes of theme working.** There was enthusiasm for considering a range of modes of theme working, including some that have not been used extensively to-date within themes. Commissioned studies of existing good practice could be helpful in the 'finding-out' phase. They should be sharply focussed and represent a low demand on the sector, avoiding wide-ranging sector surveys. There was enthusiasm for a survey of reported good practice from the literature and on the international scene.
- 33 There was enthusiasm for **consultancy working.** This could potentially involve an expert working one-to-one with individuals or small groups in institutions. This was considered to be a potentially useful approach to the institutional management strand. It could help promote close-up working, and penetrate rhetoric and statements of belief (in intrinsic linkages between research and teaching). It could also promote reflection and learning across institutions within the sector.
- 34 There was enthusiasm for **encouraging networking and communication** e.g. buddy systems across and within institutions.
- 35 Useful outcomes would include specific context- and mission-focused ideas, and **practical 'toolkits'** e.g. the overview of analysis learning teaching strategies in the English sector carried out for HEFCE by Graham Gibbs.

36 A theme should work hard to **engage researchers**. An observation following the first consultation workshop was that most of the participants were 'learning and teaching people'. This trend continued in the other workshops and in written comments. Reflection on this suggested that there was a tendency for the research community not to engage in learning and teaching developments. This presented both a challenge and an opportunity for a theme, in particular regarding the strand on institutional management. Associated with this, it might be useful to consider the 'reverse' question; how does teaching link to research?

APPENDIX A: CONSULTATION PAPER

Scottish Quality Enhancement Themes

Discussion paper regarding a possible topic theme *Research-Teaching linkages*

Executive summary

- 1 This is a starter paper, intended to inform and stimulate a consultation process about a possible Quality Enhancement (QE) topic theme concerning linkages between research and teaching. The consultation concerns the broad questions: 'would such a QE theme be useful, and if so, what should be the scope and priorities?'
- 2 The paper includes:
 - some scene-setting comments, referring to recent studies on the topic (para 3 to 5)
 - a set of issues and ideas, to inform discussion (para 6 to 16)
 - a summary of the essential characteristics of QE topic themes (para 17 to 20)
 - a set of key questions regarding the need, shape and timescale of a possible theme (para 21 to 26).

Setting the scene

- 3 Traditional, generally implicit, notions of the relationships between subject-based research and teaching are being challenged by government policy. First, by the impacts of the Research Assessment Exercise (RAE). In particular by the ways in which many universities are organising their activities in ways that separate research and teaching, in order to maximise RAE performance. Second, by direct questions from government and funding councils, about the linkages between research and teaching.
- 4 There is a considerable body of literature on the topic, much of it relatively recent. In a recent study for the Higher Education Academy, Jenkins (2004) provides an up-to-date overview, including a comprehensive list of references. His specific question asks 'whether 'quality' or 'effective' teaching is dependent on staff, departments and institutions being involved in discipline-based research'. He concludes that the issues are layered and complex, identifying specific conclusions across a range of levels (individual, departmental, disciplinary, institution, national system, and students), with a final conclusion identifying what now needs to be researched.
- 5 This paper does not attempt to either summarise or engage in detail with the literature. That would be a component of a possible QE topic theme. Rather, this paper presents a set of ideas to stimulate preliminary discussion about whether such a topic theme would be useful for the Scottish sector, and what the scope of any such theme should be.

Research-teaching relationships: issues and ideas

- 6 This section presents a set of broad issues and ideas, intended to inform discussion about a possible QE topic theme.

HE curricula

- 7 What makes higher education '*higher*'? Is some form of linkage to research an essential characteristic of 'higher education'? What graduate attributes or skills are associated with this? Is this predominantly a concern for levels traditionally associated with honours, i.e. SHE

Level H (SCQF10) and in some institutions, SHE Level 3 (SQCF9). Or is it a characteristic of learning within an HE institution, and therefore should include lower levels?

- 8 Expectations regarding graduate attributes. Following from the previous point, the UK academic infrastructure, including the SCQF (e.g. qualifications descriptors, and level descriptors for Levels 9 and 10) and subject benchmarks, includes specific graduate attributes relating to research and advancing knowledge.
- 9 Currency of the curriculum. Discussion of the definition of 'enhancement' within the ELIR method includes the statement: 'In relation to the curriculum, enhancement refers to the processes used to sustain and develop the currency of the curriculum outcomes in the light of developments in knowledge and understanding, professional practice, employer and other stakeholder expectations and other appropriate reference points' QAA (2003, para 23).
- 10 These dimensions can be associated with traditional, implicit understandings of research-teaching linkages. How could a QE topic theme engage with these in ways that might promote enhancement of the learning experience of students?

The RAE

- 11 It could be argued that the RAE is re-shaping definitions of research as predominantly 'what counts' in the RAE, emphasising 'originality' (see Appendix A). Also it is an influence on institutional policies relating to staff (see below).
- 12 Following from the previous point, the RAE appears to be driving significant changes in some parts of the Scottish sector regarding academic staff roles, including recruitment, workload models, organisation and contracts. Specific examples include: 'teaching-only', or 'research-only' contracts; staff being designated 'research-active' or 'non-researchers'; and creation of 'teaching organisations' to manage and take the brunt of teaching load for specific subjects or parts of the curriculum.
- 13 What are the impacts of institutional responses to the RAE on the learning experience of taught students? How can the student learning experience be maintained and enhanced in this context?

The concept of scholarship

- 14 In the USA, Ernest Boyer (1990) developed explanations of the role of *scholarship* in bridging teaching and research, and saw the work of the university and its staff as demonstrating four scholarships: of *discovery*, of *integration*, of *application* (or now often termed *engagement*) and *teaching*. Is this concept of scholarship useful in considering issues, and both identifying and developing good practice?

Valuing learning and teaching

- 15 The Scottish vision of a high quality higher education sector as outlined in the ELIR Handbook, includes the characteristic: 'a sector where learning and teaching are highly regarded and appropriately resourced' QAA (2003, para 20). How can the value accorded to learning and teaching be demonstrated, in the light of pressures from the RAE (see above)? Are there reality problems, e.g. institutional rhetoric claims value attached to teaching, but in reality the RAE-research is dominant? Following from this, how effectively could a topic theme engage with reality within institutions?

The Scottish HE sector and context

- 16 What aspects of the Scottish HE sector are particularly relevant to consideration of research-

teaching linkages, and in what ways? Specific aspects could include:
compact sector
diversity of institutions
FE-HE links, encouraged and facilitated by the SCQF
equality of opportunity and widening participation agendas
distinctive Scottish enhancement-led approach to quality, but RAE is a UK-wide process.

QE Themes

17 The Scottish Higher Education Enhancement Committee (SHEEC) has recently summarised the intentions, characteristics and focus of QE Topic Themes as:
being focussed on enhancement of the student learning experience
being useful to practitioners, in teaching, learning resource, student support and quality management roles
reflecting, and supporting the diversity within the Scottish HE sector, in terms of institutional mission, size, and subject focus.

18 The primary aims of themes are:
to identify the main issues and topics
to identify sector needs and concerns
to identify and share good practice, nationally and internationally
and to build on this good practice through commissioned research and development work.

19 The themes are intended to focus primarily on generic aspects i.e. generic practice that can be implemented across a range of subjects, or subject practice that has a wider relevance, e.g. practice in one subject that could be adapted and adopted in others. Specific subject-based practice is considered to be a concern of the HE Academy (formerly LTSN) Subject Centres.

20 Preliminary discussion by SHEEC on a possible topic theme relating to research-teaching linkages has agreed that the focus should be on enhancing the learning experience of students on taught programmes. The experience of students on research degree programmes would be a separate issue, apart from any consideration of the teaching-related roles that research students may have regarding taught provision.

Key questions concerning the need, priority and shape of a possible topic theme on research-teaching linkages

21 What are the **key issues** regarding research-teaching linkages for the Scottish sector?

22 In **what ways** could a topic theme on research-teaching linkages be **helpful**? Within this, how could such a theme engage with the complexity of the issues, including:
institution-level considerations, reflecting the diversity of mission, size, and significance of the RAE within institutions across the Scottish sector
subject-level considerations, again reflecting the diversity of subject provision, both within institutions and across the sector
staff-level considerations
student-level considerations, including the crucial question: 'how can the learning experience of taught students be enhanced by linkages to research?'
linkages to learning at levels *below* honours, i.e. Levels SHE1 (SCQF7) to SHE3 (SCQF9)
reality versus rhetoric; how could a topic theme realistically get to grips with the tensions and realities in practice, and go beyond traditional statements of assertion?

23 What should be **excluded or avoided**? Within this:
what would be a waste of effort?

where should the boundaries of such a topic theme be drawn?

24 Following from points in para 22 and 23 above, **what outcomes** (from a theme) **would be beneficial**?

25 What **examples or references** could be helpful in shaping a Topic Theme? These could include examples of effective practice, stimulating articles or ideas, and current problems or tensions.

26 If a topic theme on research-teaching linkages were to be developed, **when** should it start? This should include considerations of: workload within institutions, in particular for the types of individual who should be involved in such a theme; also the timescale for the next RAE.

Appendix A: Definition of research for the RAE

'Research' for the purpose of the RAE is to be understood as original investigation undertaken in order to gain knowledge and understanding. It includes work of direct relevance to the needs of commerce, industry, and to the public and voluntary sectors; scholarship*; the invention and generation of ideas, images, performances, artefacts including design, where these lead to new or substantially improved insights; and the use of existing knowledge in experimental development to produce new or substantially improved materials, devices, products and processes, including design and construction. It excludes routine testing and routine analysis of materials, components and processes such as for the maintenance of national standards, as distinct from the development of new analytical techniques. It also excludes the development of teaching materials that do not embody original research.

* Scholarship for the RAE is defined as the creation, development and maintenance of the intellectual infrastructure of subjects and disciplines, in forms such as dictionaries, scholarly editions, catalogues and contributions to major research databases.

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APPENDIX B: DISCUSSION WORKSHOPS

1. Open workshop, Edinburgh, 21 Sep 2005

Participants

Anne Sibbald (Napier University), Bob Matthew (Glasgow University), Simon van Heyningen (University of Edinburgh), Maggie King (Heriot-Watt University), Ginny Saich (University of Stirling), Janet Macdonald (Open University in Scotland), Bob Craik (Heriot-Watt University), Andrew Eadie (Glasgow Caledonian University), Kate Morss (Queen Margaret University College), Charles Marriott (Universities Scotland, Policy Officer Research and Commercialisation), Ray Land (University of Strathclyde), Anne Hughes (University of Strathclyde), David Heeley (University of Abertay), Alastair Roberston (QAA), Alan Davidson (Facilitator).

Keynotes from discussion

- There was unanimous support for a theme on research-teaching linkages.
- It was felt that the theme should start sooner rather than later.
- There was enthusiasm for a longer theme (2 years) with a longer start up.
- There was a strong desire to link in the work of the theme with other ongoing work/activities in the area e.g. by the HE Academy led by Michael Prosser, Andrea Nolan/LTC members and the Enhancement Themes of Employability and developing the Effective Learner.
- Starting this theme would necessitate the shunting of other themes back in the five year plan.
- The theme should concentrate on students in taught programmes, undergraduates and taught masters, although the effect on the student experience of tutorials, lab demonstrations etc. being delivered by postgraduate research students should also be explored.
- There was support for two clear strands of work:
 - a) The student experience which would include issues related to student approaches to learning, behaviour, acculturation etc. It should encompass all students, including those on distance learning programmes, but should not focus on the honours year and instead should concentrate on years 1-3. One question raised was: does a research mindedness have a role to play in developing students' intellectual maturity- the feeling is yes but it would be good to explore.
 - b) Institutional management. The ways in which HEIs do business in learning and teaching-research and the effects on the student experience, positive and negative that policies and structures create. The influence of the RAE was also felt to be a factor that had to be taken into consideration.
- A possible 3rd strand was related to the student experience of postgraduate research students but it was recognised that this was probably a separate theme and there was a lot of ongoing work by the research councils, UKGRAD etc.

2. Workshop following meeting of Universities-Scotland Learning and Teaching Committee, Glasgow, 27 Sept 2005

Participants

Brent MacGregor (ECA), Bill Harvey (SFC), Ron Piper (University of St Andrews), David Ross (Abertay University), Andrea Nolan (Glasgow University), John Harper (RGU), Bob Craik (Heriot Watt), Gerard Madill (US), David Bottomley (QAA), Bob Matthew (Glasgow University), Andrew Walker (SAC), Alastair Robertson (QAA), Alan Davidson (Facilitator)

Keynotes from discussion

- There was a consensus that there ought to be a separate theme based around the concept of research-teaching linkages.
- A consensus on the title of the theme was not decided at the meeting although it was felt that the work ought to be more about learning than teaching and even the word research was considered not necessarily helpful. There was a need for a title and scope that was non-threatening and all-encompassing for the sector.
- One suggested alternative title to 'research-teaching linkages' was 'developing effective strategies for the autonomous learner' Bob Craik, Heriot-Watt.
- ADR post meeting suggestions 'developing the enquiring learner'; 'Enhancing the 'higher' part of HE'
- The work ought to link in closely with both 'the first year' and 'developing the effective learner'. This raises issues re. management of the Themes and ensuring the work of the committees is joined up and not separate as has tended to often be the case until now.
- The view was expressed that institutions were not currently making enough of the linkage or interplay between research and teaching. Therefore, conducting an audit of what was going on in the sector was not sufficient on it's own- there is a need to think about ways of enhancing the student experience and curriculum.
- It was proposed that the work could be carried out in a couple of stages. An early start was felt to be beneficial and the first action might be to convene a sub-group of SHEEC members (e.g. including people involved in the current work being led by Andrea Nolan (Glasgow)) to determine what work could be carried out by a team of consultants. The consultants could then undertake a literature review and/or develop theoretical models in conjunction with the sector (achieved through e.g. focus groups, interviews) for ways in which incremental acculturation of learners can be optimally achieved through the higher education experience from day one to graduation (including the honours research project).
- The next stage of the work would be concerned with the 'how to implement such models/ strategies' and it was suggested that it might involve identifying case studies of innovative practice from a range of subject/disciplines from courses delivered by staff engaged in differing levels of research/scholarly activity. The Higher Education Academy and it's Subject Centres were felt to have a key role to play and a review of current known examples with some commentary would be helpful.
- The work done by Graham Gibbs for HEFCE which analysed English Institutions' Learning and Teaching strategies was cited (paper attached) as being possibly helpful.

3. Workshop convened by Universities-Scotland Learning and Teaching Committee, facilitated by Mike Prosser, HE Academy, Glasgow, 7 November 2005

Note: this workshop had been scheduled prior to the initiation of the consultation exercise; it seemed opportune to include comments raised in this discussion within this report.

Participants

Mike Prosser (HE Academy), Andrea Nolan (Glasgow University), Ron Piper (University of St Andrews), Mike Smith (Glasgow Caledonian), James Calderhead (University of Dundee), Alastair Robertson (HE Academy), Alan Davidson

Keynotes from discussion

- Findings from empirical research on linkages between subject research and teaching quality (measured by student satisfaction) suggest no evidence of *intrinsic* linkages
- Institutions need to constitute linkages in policies, structures and practices
- Importance of institutions explicitly explaining (to themselves) what they really mean by terms such as 'research-led-teaching'
- Significance of, and influence of Boyer's model of scholarship in the US
- Discussion noted trends within research-intensive universities toward bifurcation of research and teaching
- Graduate attributes such as research-orientation and research-mindedness enhance employability. Like other attributes valued by employers, they are 'slow-to-cook', taking time to develop. Develop can, and should start in first year
- These attributes can be developed via scholarship mode. They do not require the teacher to be an active researcher in a discovery sense e.g. as in US liberal arts colleges
- Enthusiasm for a two-strand theme: student learning experience and institutional management
- Enthusiasm for consultancy working, 1-to-1 with institutions
- Discussion of specific studies and approaches including in Australian HE sector

APPENDIX C: COMMENTS BY CORRESPONDENCE

Written comments were submitted by:

Maggie King (Heriot Watt), Ron Piper (St Andrews), John Palfreyman (Abertay)

Copies are available from QE Themes office.

APPENDIX D: Comments from workshops at QE Themes working conference, Friday 27 January 2006

Introduction

This appendix summarises comments from two sector workshops in January 2006 that were included within the Third annual Enhancement Themes working conference on 27 January 2006. Two (repeat) workshops were held, titled "12. The research-teaching linkage in enhancing the learning experience: scoping issues for a potential future theme". A total of 27 participants attended the two workshops (names and institutions are noted at the end of this appendix).

All conference participants were provided with the initial report of the scoping study (version 19 October 2005, submitted to SHEEC). The workshops consisted of a short introductory presentation summarising the scoping so far, and highlighting questions for discussion at the workshops. The key questions for discussion were:

- Scoping –comments, additions or qualifications?
- Your views on big issues re research-teaching linkages
- Problematic aspects?
- Opportunities to enhance (do better, do different)?
- What is working well for you?
- What types of theme activity would help you?

This paper collects and summarises in a narrative form comments made by participants at the two workshops

The proposed theme in general

Good outcomes would include:

- a change in culture e.g. high profile research professors seeing first-year undergraduate teaching as important and valuable
- changes in staff rewards and career structure
- clarity of missions and roles for institutions and individuals
- evidence-based justification of teaching units-of-resource in universities e.g. demonstration of value-added

However real **concerns about sensitivities and tensions** including baggage, defensiveness and potential splits

The work of the theme

Issues of language are significant and problematic. There is no established discourse to help staff articulate linkages between research activity, teaching and student learning. This can lead to dependence on statements of belief, which are not useful in developing and enhancing practice regarding learning and teaching. Within the academic community, researchers and teachers often use different languages. A framework would be helpful to set out the variety of distinctions, differentiations and language.

There is a **significant body of literature** on the subject of research-teaching linkages. In particular, the work of Boyer and Rice in the US, and Brew in Australia could help inform an enhancement theme. However there is a need to **make the findings accessible** to academic staff e.g. via a digest of the literature.

There is a **need to make distinctions** including concerning:

- **subject areas** e.g. between hard sciences, social sciences and arts, including the distinctions compared to "conventional" research; research in art and performance may include concepts related to mastery and pushing at the edges of practice and performance
- **student background** considering disposition, approach to learning and receptiveness to research
- **research** as a **process** (developing new knowledge) compared to research as **content** (knowing the latest knowledge)
- **student's level of study** and **way of thinking** (see below)

The theme should take an **evidence-based approach**, avoiding stereotypes and assumptions, and asking epistemological questions such as "what do we know", "how do we know"?

It might be useful to consider the "reverse" question: **how can teaching feed into research?**

Buddy systems could be helpful linking individuals within and across institutions.

Graduate-teaching assistants are a neglected area and an interesting group. They are working at the cutting edge of research, and have teaching-related roles; they are also potential future academic staff. Ways of working with, or through them could include two dimensions:

- consideration of their (staff-related) roles in teaching and supporting students on taught programmes
- their role as students on research programmes or as research assistants, and their formation as potential academic staff of the future.

The theme should work to a **relatively long time frame** e.g. three years

Student learning experience

Student **learning outcomes that can be related to research** include: finding-out, curiosity, confidence, originality, ways of being, and people who question. However a helpful, cautionary observation was made that other sectors, in particular the school sector could claim to use inquiry-led processes that aim to achieve outcomes that can be described using similar language.

What is distinctive in, and about higher education?

The theme **should be informed by pedagogic research** concerning how students learn, the impacts of different types of learning experiences, students' thinking styles, in particular regarding certainty of knowledge, and related to level of study. It should also consider subject distinctions concerning how different disciplines make research manifest to students e.g. in a laboratory, a book, a painting.

Distinctions between level of study, and transition points are significant. These include:

- ways of thinking, at different levels, e.g.
 - Level SHE 1 / SCQF 7 early, simple approaches such as inquiry-based learning, and problem-based learning, "not all is known"
 - Level SHE H / SCQF 10, increasing independence, with self-managed pieces of work

Key transition points within HE include:

- Level SHE 2 / SCQF 8 to Level SHE 3 / SCQF 9
- Level SHE M / SCQF 11
- FE to HE

Reported student views are mixed, and often negative. Some report a preference not to be taught by researchers.

Institutional management and policies

It can be very difficult for institutions to demonstrate strategic linkages between research in teaching, especially at levels SHE 1 / SCQF 7 and SHE 2 / SCQF 8.

Research-oriented teaching should be seen as valuable to all. Students should benefit from learning in a community of scholars, and in an environment in which both research and teaching are happening.

QE Themes conference 27 January 2006

List of participants at workshop(s) 12: The research-teaching linkage in enhancing the learning experience: scoping issues for a potential future theme"

Morning

Frank Quinalt, University of St Andrews
Bob Matthew, University of Glasgow
Mike Smith, Glasgow Caledonian University
Tim Cobbett, Edinburgh University Student Association
Peter Knight, Open University
Andrea Cameron, University of Abertay
Carolyn Kreber, University of Edinburgh
Jane MacKenzie, University of Glasgow
Jane Pritchard, University of Glasgow
Cherry White, University of Dundee
Gareth Fisher, University of Dundee
Eamon Greenwood, University of Abertay
Shirley Earl, Napier University
Paul Acarnley, Robert Gordon University

Afternoon

Duncan Cockburn, sparqs
John Palfreyman, University of Abertay
Suzanne Hardy, HE Academy Subject Centre for Medicine & Dentistry
Laura Corden, University of Dundee
Maureen Melvin, Robert Gordon University
James Dunphy, Aberdeen university Student Union
Andrea Nolan, University of Glasgow
Christina Sin, HE Academy
Bill Harvey, Scottish Funding Council
Shirley Earl, Napier University
Roni Bamber, Heriot Watt University
Sheila Hodge, UHMI
Nick Spedding, University of Aberdeen
Pete Cannell, Open University in Scotland