TEACHING AND RESEARCH: PARTNERS OR COMPETITORS?

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Teaching and research: Partners or competitors?

by

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Foreword

Universities are centres of both teaching and academic research but how do these two activities interact within the field of accounting in UK and Irish universities? There is currently much focus in the higher education sector on the impact of research on business and the wider society, but what impact does research have on teaching? Is the optimum result achieved from the interaction between teaching and research? Does teaching influence research and vice versa and what impact does academic research have on both university and professional accountancy curricula?

This project involved interviews with accounting academics and education and technical representatives of professional accountancy bodies in the UK. A survey was also administered to accounting academics in the UK.

The project finds, perhaps surprisingly, that within universities there is relatively little interaction between research and teaching, although the survey results do highlight some of the positive aspects of the mutuality of research and teaching. However, the report notes that the status quo is different in Scotland, where four-year honours programmes are the norm and an enlarged programme of study appears to have a beneficial impact on student learning and staff motivation.

Within professional bodies, research was seen as only having the potential to impact the curriculum, with limited interaction reported between technical and education divisions. The report concludes with some challenges for accounting educators to consider in order to increase the interaction between research and teaching.

This project was funded by the Scottish Accountancy Trust for Education and Research (SATER - see page 81). The Research Committee of The Institute of Chartered Accountants of Scotland (ICAS) has also been happy to support this project. The Committee recognises that the views expressed do not necessarily represent those of ICAS itself, but hopes that the project will add to the debate about the interaction between research and teaching in the field of accounting.

Allister Wilson
Convener of Research Committee

April 2012

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Executive summary

Introduction

The *raison d'être* of universities is to create and disseminate knowledge; or to undertake research and teach students. It remains something of a maxim in higher education (HE) that to be a good teacher you have to be a good researcher. This research explores the relationship that exists between these two primary activities of universities in the discipline of accounting in the UK and Ireland. Traditionally, the accounting curriculum has included a significant amount of rules-based and technique-driven content, arguably at the expense of more conceptual, principles-based and contemporary material. Changes within universities mean that accounting departments are more closely located with other disciplines, teach increased numbers of post-graduate students and have increased both the volume and quality of their research. It remains an interesting empirical question to consider what role does academic research play in influencing what is taught to accounting students?

Research aim and approach

This research evaluates the relationship between academic research and the teaching of accounting (and vice-versa). The project had four components. First, prior work in other disciplines was considered and brought together to create a conceptual model identifying how teaching and research may influence each other: this is termed the teaching-research nexus. Second, interviews were undertaken with accounting academics in the United Kingdom (UK) and Ireland. Third, education and technical representatives of accounting professional bodies in the UK were interviewed. Fourth, a questionnaire survey was developed using the conceptual model and informed by the interview responses. This survey was administered to accounting academics in the UK. The research is therefore multi-method in its approach and, by design, includes the views of significant stakeholder groups.

Key findings of the research

The professional accounting curriculum, as prescribed by professional bodies, is heavily influenced by the perceived needs of employers. Professional bodies are keen that their qualifications 'future-proof' their (new) members while preparing them to make an immediate impact on the workplace post-qualification. Two bodies in particular, ACCA and CIMA, allow students to gain significant numbers of exemptions from their qualification, if the university curriculum to be accredited is closely aligned to their own. As most universities seek to maximise accreditation based on the perceived student demand, the university accounting curriculum has become relatively uniform and professionally-based.

When considering professional accounting qualifications, academic research was generally seen by professional bodies as only having *potential* to influence the curriculum. This reflected: (i) the need to cover significant volumes of technical material; (ii) a belief that academics' research could be narrow and sometimes relatively partisan; and (iii) that research addressed future issues that might influence the curriculum only at a later date.

Professional bodies themselves generally did not organise themselves to promote any nexus between education and research in their own organisations. Technical functions tended to operate in isolation to education and vice-versa. Research commissioned by professional bodies did not influence their own curricula. Employers' needs, identified by education departments, did not influence the research agenda. It is perhaps surprising that the two functions that liaise directly with universities have relatively little communication between them.

Research was commissioned by professional bodies for a number of reasons. These included: (i) a desire to support university teaching of accounting; (ii) to develop technical policy; or (iii) to reinforce their identity as a professional body.

When academics were questioned, it was found there was relatively little interaction between research and teaching. That is, their research

agenda did not significantly influence their teaching or vice versa. This was attributed to three factors: (i) the relatively restrictive role of accreditation; (ii) significant resource constraints on accounting groups, where often these groups were seen as 'cash cows' with significant surpluses to be created through teaching students; (iii) faculty resistance, either because of their perceived inability to undertake 'the work' or a concern to protect what limited resource they have to allow them to undertake their own research.

Scotland was something of an anomaly where a four-year honours degree was the norm. Accredited material was covered in the syllabus in the first three years, with the fourth year more developmental and research-led. This was well-received by academic staff teaching on these programmes. When examples of the research-teaching nexus were provided by interviewees, this tended to emphasise the transmission of the lecturer's own research or where students became the audience rather than the enquirers themselves.

Research was not seen by some as vital for the curriculum for two reasons. First, some of the professional body interviewees identified a lag between research being published and its eventual adoption into the mainstream. Second, academics tended to view the professional bodies as somewhat conservative. Some professional bodies themselves alluded in the interviews to being keen not to 'scare' employer groups with unorthodox or critical thought within the professional curriculum. This was perhaps to be expected with a significant marketplace existing for professional accounting education, with a number of bodies aggressively competing with one another for students.

When the questionnaire findings are considered, some of the positive aspects of the mutuality of research and teaching are emphasised. These include the idea that active researchers are well-placed to supervise project and dissertation work, now common elements of taught post-graduate education in accounting, and their ability to assist students critically analyse problems. Likewise, teaching itself is seen as a means of stimulating a researcher's thoughts.

The propositions ranked the least by survey respondents are, arguably, the most controversial ones arising from the literature. In

particular, respondents seemed to dismiss the notion that teaching would not enhance academics' promotion prospects. This possibly reflects teaching as being a key aspect of academic work. Also not finding favour were ideas that students studying a professional programme, such as accounting, are likely to see research as unimportant.

Avenues for future research

The research has three limitations which are suggestive of future research. First, the project is UK-centric so international perspectives would be of interest. For example in European countries professional accreditation is very limited. In the United States, by contrast, accreditation is endemic, league tables are published to report Schools' performance in professional Certified Public Accountant (CPA) examinations and no state funding exists for accounting research. Second, professional bodies have been used to represent employers' views. Do professional bodies' focus groups really represent what employers need, or say they need? With major accounting firms largely recruiting graduates from non-specialist backgrounds, what do these students bring to accounting employment that accounting graduates cannot? Do accounting degrees offer a cheap means of employers recruiting ACCA and CIMA trainees, where most of the requisite learning has taken place at university, while professional firms can easily provide non-specialist graduates with the necessary skills? What then is the future of accounting in the university curriculum? Third, we need more practical examples of how research can inform teaching to provide educators with the resources to take back to the classroom and allow accounting educators to sell their teaching to the world. Finally, student perspectives on the desired nexus and their experiences of university and professional education would be of interest.

Challenges

There are four challenges to accounting educators and policy makers arising from this research. These are:

C1 **Consider how education and research/technical departments within professional accounting bodies could work more closely together.** At present education and research/technical departments are located physically and structurally apart in professional accounting bodies. Closer relations could lead to a more progressive curriculum and foster research that would develop the curriculum.

C2 **Understand that creating the research-teaching nexus is more about inspiring students to undertake research, rather than passively absorbing the content of contemporary research.** Interview-based findings suggested when research was included within the curriculum, it tended to involve students passively absorbing prior research in the form of reading journal or magazine articles rather than undertaking research. In other disciplines, student research is a means of active enquiry. This can include matters such as poster displays, students developing hypotheses about current problems, conducting replication research or undertaking mini-literature reviews. Such activity as accounting learning appears thin on the ground. Research skills such as enquiry, analysis, synthesis and interpretation also seem important transferable skills for professional accountants.

C3 **If implementing a strategy of integrating research into teaching, recognise that a significant number of negative impacts potentially exist.** The teaching research nexus cannot be regarded as a universal good and something educators, administrators, or regulatory agents should strive for uncritically. The four-factor, 19-proposition model developed from extant literature identifies 10 potentially damaging matters that require judicious management and planning to ameliorate their effects.

C4 **Recognise that linking teaching to research creates potentially more resources for research.** A paradox exists in that even in the most research intensive of departments, research income is a small fraction of total revenue. In many institutions, academic accounting groups are perceived as largely teaching groups with little research grant income. As a result of budgetary cuts associated with the public sector deficit, pressure to reduce costs will inevitably mean research activity is placed under the microscope. An axiom of university education is that quality teaching is underpinned by quality research. If academic research does not directly inform teaching, but exists for legitimacy reasons, to boost the profile of the academic unit or individual academics, public funding for accounting research is increasingly difficult to justify.

1. Background

> *The University is a place of teaching universal knowledge. Its object is the diffusion and extension of knowledge rather than its advancement. If its object were scientific or philosophical discovery, I do not see why a University should have students.*
>
> (Newman, 1907, p.106, cited in Lindsay *et al.*, 2002, p.310)

Good university teaching has always been seen as important, improving student learning and encouraging the development of specialist knowledge and competencies (Ramsden and Martin, 1996). However, a century since Newman's wry observation, the pressures for universities to meet the multiple demands of increasing both the quality and quantity of teaching and research have escalated (*e.g.* Harley, 2000; Brinn *et al.*, 2001).

There are three implicit assumptions in the reasoning for an academic to link teaching and research. The first supposition is that the academic is researching an area that is of relevance to the curriculum being taught, hence moving the subject forward. Second, it is believed that by researching the same area, the quality of the academic's teaching will be enhanced. The third assumption is that teaching quality will enhance student learning.

If these three assumptions are removed then the position is that research has no connection with teaching and vice versa. Brown (2005) argues that the integration of teaching and research can be placed along a continuum where, at one extreme, research-focused academics disseminate their findings only to their research community and, at the other, the knowledge that is disseminated in teaching to students is not informed by the academic debate conducted by researchers. There are middle-ground positions when perhaps a research-active academic is asked to supervise a post-graduate dissertation.

Hughes and Tight (1995) have argued that, in the United Kingdom (UK) at least, there is an expectation that academics at universities should be both teaching and researching at the highest level possible and that a symbiotic relationship exists between the two activities. This view provides a key motivation for this report. Applying Hughes and Tight's (1995) perspective, academics that excel at one activity should be good at the other. However, this remains a contentious proposition.

Jenkins *et al.* (2007, p.13) summarise the value of the research-teaching nexus from three perspectives:

- Experientially – as a process which benefits both students and staff.
- Conceptually – in terms of societal needs and the development and communication of knowledge.
- Operationally – in terms of the potential reciprocity of teaching and research as learning activities.

Despite significant enquiry into linkages between accounting research and practice over the past three decades (*e.g.* Hines, 1989; Lee, 1989; Zeff, 1989a, 1989b; Albrecht and Sack, 2001; Gray and Collison, 2002; Inanga and Schneider, 2005; Parker *et al.*, 2011) relatively little research has considered the relationship between accounting research and teaching (*e.g.* Rebele *et al.*, 1998); although some tensions between accounting education and research are alluded to in Kitchen and Parker (1980) and Solomons and Berridge (1974). Accounting education, of course, is not alone in its relationship with a profession. Many other vocational, professional disciplines such as engineering, law and medicine have close relationships with professional bodies who have clear views on the university curriculum.

This research report provides accounting academics, professionals and regulators with an overview of the benefits and potential costs that influence the integration of teaching and research. It is envisaged the model will be particularly valuable to a wide range of accounting educators. For example, senior staff are concerned with maximising evaluations of research, improve teaching effectiveness and ensuring

departmental goals and targets are aligned. New faculty wish to ensure they balance teaching and research to meet short-term goals, such as passing a probationary period, alongside personal long-term goals such as gaining a chair, a senior administrative post or working abroad.

This research has three objectives. First, to extend the research-teaching nexus literature by developing a conceptual model and associated propositions about the relationship between teaching and research and develop reflective practice. In constructing the model a process of global convergence is assumed whereby 'knowledge, images... and beliefs all readily flow across territorial boundaries' (McGrew, 1992 p.65-66). Therefore, the international nature of higher education (HE) should lead to 'a homogenisation of world cultures and peoples' (Berry, 2008). Furthermore, environmental pressures such as the Bologna Process in Europe intend to create a level playing field for staff and students by 2010, which should encourage greater harmonisation of higher education management across Europe (Diamond, 2005). Thus the developed model should be applicable in a wide range of cross-cultural accounting contexts. However, it is anticipated some factors will be more significant than others reflecting different social and environmental factors.

Second, to review the association between research and teaching in the disciplinary context of accounting. The research report explores how the integration of research and teaching interacts with four factors relating to the curriculum, students, researchers and institutional reward mechanisms, and develops a theoretical model. The likely relationships between the variables in the model are indicated. It is argued that, in the case of a vocationally-influenced accounting curriculum and with academics engaged in applied research, the interaction of research and teaching allows the realisation of mutually beneficial synergies.

Third, to explore issues surrounding the research-teaching nexus with two powerful constituents: representatives of accounting professional bodies; and academics in UK accounting departments.

Questions asked

The investigation is informed by four sources of data:

- a defined literature review and normative model derived from this literature;
- semi-structured interviews undertaken with UK accounting academics to identify the determinants of the research-teaching nexus and attitudes towards teaching, research and those other activities of an academic accounting department;
- semi-structured interviews undertaken with education and technical representatives of accounting professional bodies to ascertain the linkages between the education and research functions within professional bodies; and
- a questionnaire survey, sampling UK accounting academics, to elicit the importance of specific factors interacting with the research-teaching nexus in accounting.

The items within the questionnaire were derived from a detailed review of the academic and professional literature relating to the interaction of research and university and professional teaching published up to the start of 2009. They are further informed by the findings of the semi-structured interviews. In total, a comprehensive list of 61 items was created. These 61 items are used to measure 19 propositions. For convenience the 19 propositions (theoretical statements) were grouped into four categories. Table 4 in chapter 3 lists the 19 propositions and four categories. Each proposition is viewed as having either a positive (+), negative (-), or mixed (+/-) effect on the ability to inform teaching with research (and vice-versa).

Respondent groups and response rate

Semi-structured interviews were conducted with 18 accounting academics of varying seniority and experience based in both traditional and modern universities in England, Wales, Scotland and Ireland.

Eight semi-structured interviews were also conducted with education and technical representatives from the six accounting professional bodies based in the UK that, at the time of undertaking the fieldwork, formed the basis of the Consultative Committee of Accounting Bodies (CCAB).

Academic accounting staff in the UK were chosen from the British Accounting Review Research Register 2008. Of the 1,394 questionnaires distributed (with two follow up mailings), 247 responses were received. This represents a response rate of 17.7%. A more detailed description of the sampling procedures and sample composition is described in chapter four.

Structure of the report

Chapter two describes the research approach, explaining how the questionnaire survey was conducted and the background questions asked to respondents. Chapter three contains a literature review. The chapter describes the underlying characteristics of the focal research-teaching nexus. It develops a conceptual model to define the nexus which is used, in part, as a framework for the questionnaire development. Chapter four presents the research findings. Chapters five summarises and concludes. The implications of the research are discussed along with the identification of four challenges for accounting educators.

2. Research approach

The research approach has four components. Each focuses on the views of key stakeholders in the teaching-research nexus.

The first was to undertake an extensive review of extant accounting and education literature. The work reviewed was both international and multi-disciplinary in its nature. To summarise the main ideas, 19 statements (propositions) are developed to frame the concept of the teaching-research nexus. These 19 propositions were segmented into four categories of issues relating to: students; researchers; the curriculum; and extrinsic rewards for academics.

The second component involved undertaking interviews with academic accounting professionals in the UK and Ireland. Academics are an important group to examine as they have a significant influence on the accounting curriculum within universities, determine how it is taught and assessed, and, of course, undertake academic research. The interviews were semi-structured in nature and aimed to elicit views on the desirability and practicality of including contemporary academic research within the curriculum. In addition a range of projective techniques were used, using quotes from other researchers and students, to establish academics' beliefs in this area. The background of the 18 people interviewed are summarised in Table 1.

Table 1 Description of academic interviewees

Academic interviewee	Location	Sector	Grade
AC1	England	Post 1992	Professor
AC2	Wales	Post 1992	Senior Lecturer
AC3	Scotland	Pre 1992	Deputy Head of School
AC4	Scotland	Post 1992	Professor
AC5	Scotland	Pre 1992	Professor
AC6	Scotland	Post 1992	Professor
AC7	Ireland	Post 1992	Lecturer
AC8	England	Pre 1992	Professor
AC9	England	Pre 1992	Professor
AC10	Scotland	Pre 1992	Senior Lecturer
AC11	Wales	Post 1992	Senior Lecturer
AC12	England	Post 1992	Senior Lecturer
AC13	Ireland	Post 1992	Head of Department
AC14	Wales	Post 1992	Head of Department
AC15	England	Pre 1992	Lecturer
AC16	England	Post 1992	Senior Lecturer
AC17	Ireland	Post 1992	Lecturer
AC18	England	Pre 1992	Senior Lecturer

The third element of the research focuses on the views of professionals employed by the UK's professional accounting bodies. The professional bodies play an important role in training, assessing and regulating accountants, as well as brokering relations between academe, employers and policy makers. Specifically representatives of both education and technical sections from professional bodies were interviewed. Table 2 summarises the job roles of the representatives of the professional bodies interviewed.

Table 2 Description of interviewees from professional bodies

Professional body interviewee	Professional body	Job role
PB1	CA1	Education
PB2	CA2	Education
PB3	CA3	Education
PB4	CA4	Technical/research
PB5	CA5	Technical/research
PB6	CA6	Education
PB7	CA4	Education
PB8	CA3	Technical/research

The fourth component of the research involved the administration of a questionnaire survey to UK accounting academics. The questionnaire was developed from the literature review described in chapter three and refined on the basis of interview evidence created from the other two parts of this project. In addition, the questionnaire asked some open-ended questions derived from the interviews. The key purpose of the questionnaire was to understand how generalisable the interview findings were to the wider population.

Therefore, the project is multi-method in its approach. Interviews were conducted on an anonymous basis, and where possible, reported in such a way as to prevent respondents' identity being made available.

3. Background and conceptual model

UK accounting education: academic and professional relations

Graduates with relevant accredited accounting degrees typically receive some exemptions from the qualifying examinations of the UK professional accounting bodies. However, accredited graduates are also required to complete varying amounts of additional study assessed by formal examinations and gain professional experience to be admitted to professional membership. University accreditation, allowing exemptions from certain professional examinations, is not granted automatically and departments have to undertake regular accreditation exercises with individual institutes to ensure their curricula are aligned with the relevant professional qualification for their alumni to gain, varying degrees of, exemption from professional examinations.

UK accounting employers and professional institutes are not solely dependent on universities for their intake of trainees or student members; although arguably both university accounting programmes and the profession are at least partly reliant on each other for their legitimacy (Annisette and Kirkham, 2007; Gammie and Kirkham, 2008). The increased practicality of accounting degree courses has grown with the influence of the accounting profession clearly identified in the undergraduate curriculum (*e.g.* Ward and Salter, 1990; Zeff, 1997; Sikka *et al.*, 2007). Professional accounting bodies are themselves subject to some oversight, for example, from the Professional Oversight Board in the UK, via the theoretical knowledge requirements of EU Directive 2006/43/EC and, as members of the International Federation of Accountants (IFAC), the Education Standards of IFAC.

Accounting remains a popular degree choice at UK universities. In 2008/09, there were 33,000 students of accounting (HESA, 2010).

Some illumination of the demographics and qualifications of UK accounting faculty is provided by Brown *et al.* (2007) who identify that in 2004 only 50% of faculty possess a professional accounting qualification, compared to 74% in 1984. However, in 2004, 39% of faculty possessed

a doctoral degree, relative to only 10% in 1984 (Brown *et al.*, 2007). Furthermore, since 1996, 40-45% of accounting faculty publish an academic paper or article in a professional journal in a biennial period, compared to only 27% in 1984 (Brown *et al.*, 2007). These findings suggest that: (i) faculty engaged in teaching a large body of students in accounting are increasingly drawn from academia rather than the profession; and (ii) faculty are becoming more involved in research, rather than teaching activities alone. The decreasing numbers of accountants entering academe from a professional background (Otley, 2002; Duff and Monk, 2006; Weetman, 2007) is perhaps fuelled by the increased emphasis on research fuelled by successive RAEs (Brinn *et al.* 2001). It remains an open question whether these changes benefit accounting education.

Research and teaching in UK higher education

Research output as a key performance measure of UK universities has a relatively short history. As Cardinal Newman suggested in the introduction to this report, historically universities were places of learning and teaching. Brown (2005) identifies that the importance of research, alongside teaching, only emerged as late as the Robbins Report (1963). In the UK, research selectivity exercises date from 1985, with the research assessment exercise (RAE)/Research Excellence Framework (REF) being employed as a method of allocating funding based upon research outputs. In the UK, government funding of higher education is undertaken via national funding councils. Collectively, recurrent teaching grants in the UK total £5.5 billon, with research accounting for £1.7 billion of public funds (HEFCE, 2010; HEFCW, 2010; SFC, 2010).

The increased interest in research has coincided with significant numbers of students entering higher education predominantly as a consequence of government policy. HESA (2011) statistics reveal that in 2009/10, there were approximately 2.5 million students in the UK (total undergraduate and post-graduate), compared to less than 0.9 million in 1984/5, with the main increase coming from a doubling of full time undergraduate numbers. The Department for Education and Skills estimated that in 2003/04, approximately 44% of UK 17-30 year olds entered

higher education (DfES, 2006). The amount of teaching that takes place at universities has never been higher. Furthermore, the changing funding of higher education has left graduates with significant debt burdens, which in turn has led them to seek degree courses with a stronger likelihood of gaining well-paid employment following graduation (*e.g.* Barnett, 2007). At the time of writing, rapid university fee increases are forecast in England and likely to fuel this effect. Vocational programmes such as accounting are well-placed to take advantage of this phenomenon.

A hierarchy of student learning

As this investigation considers the relationship between faculty research and teaching, it is worthwhile considering what is meant by student learning. Accounting researchers have been enthusiastic in their efforts to understand, explain, define and measure student learning. Learning is frequently conceived of as a hierarchy, from the simple, passive acquisition of knowledge to fundamental behavioural change. Using Säljö's (1979) interview-based research, extended by Marton *et al.* (1993), students' conceptions of learning have been classified into a hierarchical framework, which is reported in Table 3.

Table 3 A hierarchy of conceptions of learning

Level	Hierarchy	van Rossum and Schenk (1994) categorisation
1	Increasing one's knowledge	Reproducing (surface approach)
2	Memorising and reproducing	
3	Applying	
4	Understanding	Constructive (deep approach)
5	Seeing something in a different way	
6	Changing as a person	

Adapted from Dart (1998, p.225)

These conceptions have been further reduced into two categories by van Rossum and Schenk (1994), into 'reproducing' (or surface approach) for levels one, two and three, and 'constructive' for levels four, five and six. The outcomes of learning are associated with the conceptions of learning students hold (*e.g.* van Rossum and Schenk, 1994). In particular, low quality learning outcomes are associated with memorisation strategies and the need to passively acquire large volumes of information (*e.g.* Ramsden, 2003).

The first three categories describe learning as a relatively instrumental, passive process often led by the instructor. At the higher levels, associated with the constructive perspective, learning is seen as an active process in which learners construct their own meaning. That is, something a student does to understand the world around them.

As the conceptions represent a hierarchy, those learning at higher levels are also capable of seeing learning as a simple process of increasing knowledge when the situation demands. Recent studies indicate that changing (aligning) the learning environment to achieve higher quality learning outcomes can be successful (see Gordon and Debus, 2002; Hall *et al.*, 2004; Cope and Staehr, 2005; Ballantine *et al.*, 2008).

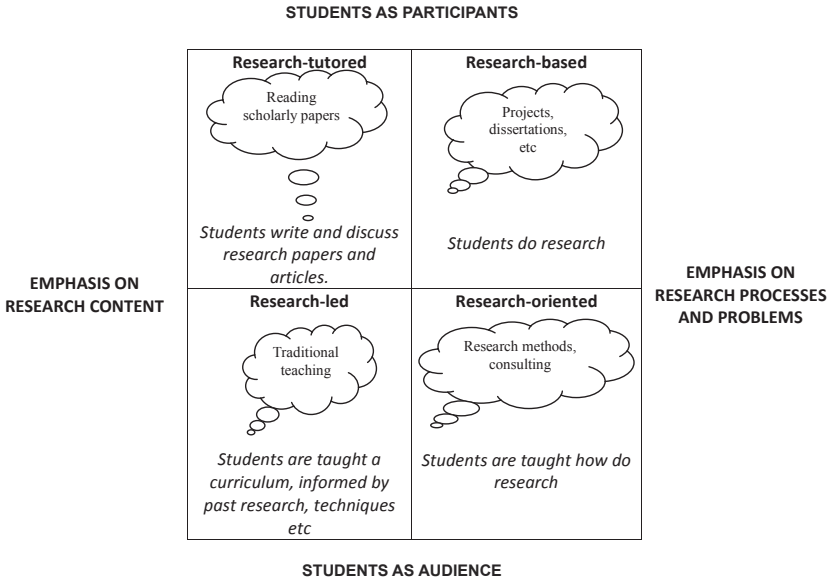
An underlying assumption behind the research-teaching nexus is that linking teaching with research enhances student learning, by the development of 'research-type graduate attributes' (QAA, 2009, p.2). These graduate attributes align with the higher (constructive) levels of learning outlined by van Rossum and Schenk (1994). The 'Teaching-Research Nexus' is a Quality Assurance Agency Enhancement Theme in Scotland and forms part of the system of institutional reviews. In this sense, the nexus is seen as 'a good thing', perhaps unquestionably so, and, arguably, much research concerning the desired nexus is agenda-led.

Combining teaching and research

At this stage it is opportune to consider how students might experience research as part of their learning. Jenkins (2010) proposes a model with two axes, first, students as audience and students as participants, and second, emphasis on research content and emphasis on

research processes and problems. These two axes create four quadrants, as illustrated in Figure 1:

Figure 1 Implementing the research-teaching nexus



Source: Adapted from Jenkins (2010)

'Research-led' reflects traditional university teaching. Students are an audience and the emphasis is on content. In particular, students are taught to a curriculum which is heavily influenced by received wisdom, informed by past research and well-understood techniques and accepted best practice. Often such an approach will be supported by knowledge widely available in textbooks. That is, well-received wisdom supported by research often undertaken many years ago.

'Research-tutored' differs from research-led in that students work with contemporary research papers and findings. Examples include asking students to undertake a literature review or develop hypotheses. The emphasis remains on content rather than *how to do* or *doing* research.

'Research-oriented' focuses on the techniques of doing research. For example, research methods courses, understanding statistical methods, the philosophy of research or how to undertake a consulting project.

'Research-based' learning involves students solving problems or attempting to find answers to research questions. At one level it might involve students replicating their tutor's research findings, or proposing solutions to a contemporary problem based on their researching and applying contemporary theories, undertaking a dissertation, or a work-based consulting project as an internship.

Research–teaching nexus: A conceptual framework

To assess empirically how the research-teaching nexus might be experienced by faculty, a conceptual model was created informed by extant education literature. The literature review is international, multi-disciplinary in its nature and uses literature published over an extensive time period. A strength of this approach is that it encapsulates a wider universe of knowledge than could possibly be found in the accounting and business education literatures. A limitation is that research and learning are undertaken in a contextual environment, with a subject area (accounting) and where societal demands on higher and professional education are ever changing.

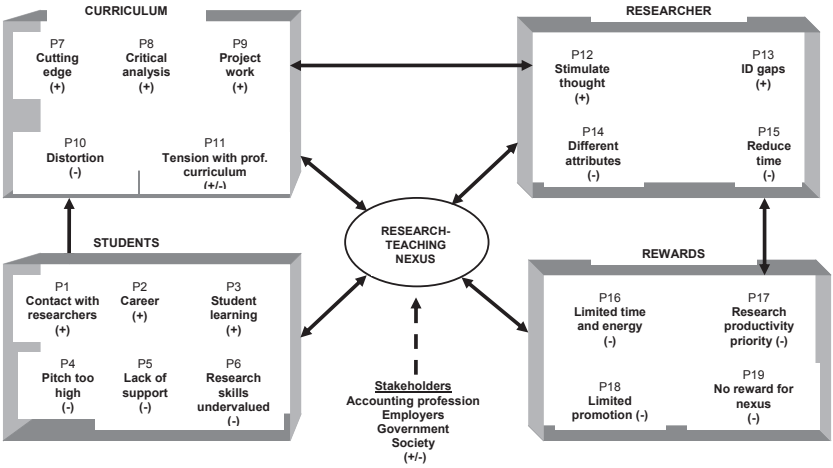
The literature review identifies those four sets of factors which bound the nexus. Factors one and two relate to the two primary stakeholders in the process (faculty and students). The third factor relates to the curriculum that faculty teach and students study. The fourth factor relates to faculty rewards, what motivates academics to promote or exclude any relationship between teaching and faculty and/or student research.

The four factors are described by a number of sub-factors, which for ease of understanding, are framed as propositions. Each proposition summarises what we might expect to find based on prior work conducted in other academic disciplines and international settings.

The literature review suggests that the relationship between research and teaching can be described by 19 propositions, each of which should

have a positive, negative, or mixed effect on the idea that teaching and research should be integrated. The model and this study also recognise the circular relationship between the factors and the research-teaching nexus. This is summarised in Figure 2 and Table 4.

Figure 2 The relationship between teaching and research in accounting



The four-factor, 19-proposition framework is constructed to provide an overview of the extensive literature which has considered the relationship between faculty research and student learning. It is completed by means of summarising what has been achieved and provides a platform for empirical testing via the development of a questionnaire.

The approach taken in this literature review and the resultant propositions paint a deliberately stark picture so the potential forces on the research-teaching nexus are apparent. It should, however, be emphasised that not all universities are the same and accounting degrees can and are taught in departments where the numbers and proportions of teaching staff active in research vary greatly. So the factors that are identified may not necessarily exist in substantial degrees and a clear 'middle-road' aspect of the nexus can exist.

Table 4 Summary of the propositions supporting the model

No.	Proposition	Direction
Student issues		
P1	Students value contact with researchers.	+
P2	Students exposed to research are more likely to consider a career in research.	+
P3	Student learning is enhanced through contact with researchers.	+
P4	Productive researchers may pitch the level of their classes too high.	-
P5	Productive researchers have less available time to support students.	-
P6	Research skills are not highly valued by students perusing professional studies.	-
Curriculum issues		
P7	Research provides students with a 'cutting edge' to their learning.	+
P8	Productive researchers provide students with the tools they need to conduct critical analysis.	+
P9	Productive researchers are better placed to supervise dissertation and project work.	+
P10	Productive researchers may distort the content of the curriculum with a desire to include their own research.	-
P11	Using contemporary research creates a potential tension with the professional curriculum.	+/-
Researcher issues		
P12	Teaching stimulates the researchers' thoughts.	+
P13	Teaching allows the researcher to identify gaps in their knowledge base.	+
P14	Research and teaching require different sets of personality characteristics.	-
P15	The time available to undertake research is limited by other academic activities.	-
Rewards issues		
P16	Researchers have limited time, energy and commitment to undertake teaching as well as research.	-
P17	Faculty evaluations are likely to emphasise research productivity over other academic activities.	-
P18	Teaching alone is unlikely to enhance promotion prospects.	-
P19	There are limited rewards for creating a research-teaching nexus.	-

Note:

+ = positive effect on integrating teaching and research
- = negative effect on integrating teaching and research
+/- = mixed effect on integrating teaching and research

For example, P1, if students value contact with researchers this is likely to have a positive impact on the integration of teaching and research, and conversely the interaction of teaching and research would have a positive impact on students.

Student perspectives

Student perspectives on the research-teaching nexus were first highlighted by Neumann (1994), who identified the limitations of correlational studies in this domain. In particular, as the benefits of the research-teaching nexus relate largely to teaching, 'students are a most important group to consider in examinations of the teaching-research nexus' (Neumann, 1994, p.324).

Specifically, Neumann (1994) reported tangible benefits to students of faculty research, as students perceive their courses to be up to date and that their lecturer was enthusiastic about the course material. Furthermore, faculty research is said to lend credibility to the department and university in which they are studying (Jenkins *et al.*, 1998). The UK National Student Survey finds that students in departments with the highest research scores were more positive than students in lower-rated subject areas (Grant and Piatt, 2008).

Within the discipline of accounting, Cullen *et al.* (2004) describe how students value contact with researchers when using case studies in a class developed by the teaching faculty. In the US, Bell *et al.* (1993), using survey methods, report that accounting faculty teaching evaluations are positively correlated with research productivity. Collectively, these findings lead to the following proposition:

Proposition P1: Students value contact with researchers

Lindsay *et al.* (2002) interviewing undergraduate and post-graduate students from eight different disciplines identify the positive effect research-active faculty may have on future research career considerations. For example, a master's student of Anthropology, stated (p.309):

> *If you are setting people on the road to research then it's... quite obvious, that if the lecturer isn't involved in research themselves, how can they do this?*

Within accounting, and especially in the United States (US), there is a recognition that there is a shortage of accounting PhDs, particularly

in the areas of auditing and information systems (Plumlee *et al.*, 2006). The shortage is said to reflect the scarcity of supply of just graduated PhDs. For example, the American Accounting Association notes a decline in accounting PhDs graduating in the US and Canada from 195 in 1989 to 110 in 2001 (Fogarty, 2006). The Felix Committee (2006) surveying accounting department chairpersons in the US and Canada identifies an estimated shortage of 500 available faculty in 2005-2008. The situation is made more acute with the relative attractiveness of careers in public accounting. Growing demand for accounting PhDs reflects the numbers of faculty destined to soon retire (Felix Committee, 2006), along with increased demand for accounting majors created by increased regulation. This leads to the following proposition:

> ***Proposition P2: Students exposed to research are more likely to consider a career in research***

Elton (2001) contends that 'a positive research and teaching link depends on the nature of students' learning experiences' (p.43). Jenkins *et al.* (1998, p.133) identify the benefit of faculty research to students is 'the sense it gave them of staff as people and as learners'. Faculty involvement in research is said to demonstrate their enthusiasm and their commitment to learning. Student support for learning in an environment where research is conducted is also identified by Jenkins (2004) and Hunter *et al.* (2005).

In accounting, Cullen *et al.* (2004, p.251) describe the development of empirically-based case studies concluding:

> *When real 'messy stories' of accounting in context are used within a problem-based learning context, they can play a significant role in meeting the challenges facing accounting education.*

Students' approaches to learning (SAL) research is popular with accounting educators in Australasia and the UK. For example, a SAL literature review identified 21 empirical studies undertaken in the field of accounting education (Duff and McKinstry, 2007). This collective

literature is based on an assumption that improving student learning requires the development of a so-called deep approach to learning. Specifically:

> *A deep approach entails looking for meaning in the matter being studied and relating it to other experiences and ideas with a critical approach.* (Duff, 2004, p.57)

A deep approach may be fostered by presenting material of high perceived relevance to students' interests (Fransson, 1977) and the interests and enthusiasm shown by the lecturer (Ramsden, 1979). For example, in accounting, Cullen *et al.* (2004) demonstrate how case studies can be used in a problem-based learning context to develop deep learning.

Collectively, these findings identify the implicit assumptions behind the research-teaching nexus, that research enhances teaching quality, which improves student learning, leading to the following proposition:

> ***Proposition P3: Student learning is enhanced through contact with researchers***

Vidal and Quintanilla (2000), surveying academics in Spain, identify that the most specialised research may affect the most general and basic courses negatively. Goldstein and Neugebauer (1995) provide an account of distinguished physicist Richard Feynman who attempted to integrate research and teaching through deep scholarship. Feynman's introductory physics class was so insightful that many faculty chose to attend, yet student attendance declined rapidly. Elton's (2001, p.52) critique of Feynman's disappointing experience was that:

> *Academic teachers think of students in terms of their own student experience and rarely if ever verify how typical it is from the viewpoint of their own students. Since only a few students become academics, it is of course, the very opposite of typical.*

In accounting, Swain and Stout (2000), surveying recent PhD graduates, identify that for new faculty teaching development is a personal development, rather than a component of their doctoral programme or academic employers. Such a finding suggests newly-qualified PhD holders, rather like Feynman, are reliant on an awareness of their own learning rather than that of their students. Collectively, these findings lead to the following proposition:

Proposition P4: Productive researchers may pitch the level of their classes too high

Both Jenkins *et al.* (1998) and Lindsay *et al.* (2002) identify that students perceive research-active lecturers to be less available than teachers not engaged in research. For example, Lindsay *et al.* (2002, p.309) report the following quote from a Master's student of Environmental Management:

> *You've got this, in the back of your mind, if you go and see somebody, you know that you can't go and talk to them for too long, because they're always really busy, you know*

This issue is said to be more acute for post-graduate students who often pay fees and living costs themselves (Lindsay *et al.*, 2002).

Relations between teaching and research have also been examined at an institutional level by Astin (1993) and Astin and Chang (1995). Sampling 200 four-year undergraduate colleges in the US, both studies reported that colleges with a research-led mission had increased levels of student dissatisfaction. Thus:

Proposition P5: Productive researchers have less available time to support students

Students undertaking professionally-oriented courses focus their learning on 'how to do the job' at the expense of acquiring intellectual skills such as recognising and managing complexity, uncertainty,

addressed as a matter-of-course by researchers (Griffiths, 2004). The requirement to impart professional skills creates a potential tension with those components developing research skills. The burden of professional accreditation is said to promote a 'technical and instrumental view of accounting' (Sikka *et al.*, 2007, p.3).

The pursuit of professional accreditation is said to have lead to university degrees emphasising the rote-learning of techniques, rules and regulations at the expense of considering the consequence to society of extant accounting practice and organisation (Sikka and Willmott, 2002). Furthermore, texts used in university accounting education emphasise the professional syllabus (for example, Sikka, 1987; Ward and Salter, 1990; Ferguson *et al.*, 2005). Professional accountancy colleges that prepare trainee accountants for professional examinations typically lack IT facilities, libraries, academic pastoral care and instructors trained in research. Such colleges use rote-learning and cramming techniques (Power, 1991) that secure good results in professional examinations, but are ill-equipped to deliver research training or promote student enquiry. Thus:

> ***Proposition P6: Research skills are not highly valued by students pursuing professional studies***

Curriculum issues

Researchers are said to enhance the knowledge currency of the curriculum (Jenkins *et al.*, 1998; Lindsay *et al.*, 2002). For example:

> *You also need the research to be at the cutting edge, because there's no point in doing a course to find it's outdated when you go out into the real world.* (Master's student, Hospitality and Tourism reported in Lindsay *et al.*, 2002, p.320)

In particular, students perceive the 'benefit of research was the enthusiasm for their discipline/research that some lecturers convey when they refer to their own work and the positive impacts on their motivation

to learn' (Lindsay *et al.*, 2002, p.320). However, students observe a clearer connection between lecturer research and the curriculum in those subjects where knowledge is seen as constantly changing (for example, biology) rather than other sciences and mathematics where knowledge is seen as relatively static (Neumann, 1994).

Rowland (1996), interviewing 12 heads of department at one institution in the UK, believed that active involvement in research benefited teaching, especially at graduate level. Researchers were believed to adopt a more holistic and interpretative approach. Leslie *et al.* (1998), surveying 160 chief academic officers in the United States, identify that 93% of respondents believed faculty research positively affects teaching.

Vidal and Quintanilla (2000) identify that researchers can provide a better perspective of what is going to be demanded of a specific professional, which suggests their inclusion in curriculum development groups, as they are closer to the cutting edge of knowledge. Furthermore, research activities contribute to updating the curriculum, positively affecting the most specialising courses.

In accounting, Cullen *et al.* (2004, p.251) report that empirically-based case studies provide a 'powerful means of further effecting real accounting practice', rather than 'lying dormant in the pages of academic journals'. Collectively, these findings lead to the following proposition:

Proposition P7: Research provides students with a 'cutting edge' to their learning

A popular academic view of integrating research into teaching is that it promotes critical enquiry (Neumann, 1994; Leslie *et al.*, 1998; Smeby, 1998; Cullen *et al.*, 2004). Robertson and Bond (2001) describe this as a belief that research-active academics exemplar a questioning and research approach to learning which 'rubs off' onto students.

Kane *et al.* (2004, p.297) studying 'excellent' university teachers in New Zealand quote one interviewee:

> *The facts, a lot of times, are irrelevant, and they're going to be out of date by the time they graduate. The thing that won't be out of date is how scientists go about solving problems... I try to make the points by walking students very carefully through the research that was conducted to come up with those particular conclusions. And they're starting to think critically about the whole process of science...*

In accounting, Kelly *et al.* (1999) argue for the use of research as part of a holistic approach to learning in developing accounting students' critical thinking skills. Collectively, these findings lead to the following proposition:

> ***Proposition P8: Productive researchers provide students with the tools they need to conduct critical analysis***

Both Jenkins *et al.* (1998) and Lindsay *et al.* (2002) identify how students perceive researchers to be more competent dissertation or project supervisors. For example:

> *She talked about using a Q-sort in research that she did earlier, and that's encouraged me to actually use the same methodology.* (Masters student in education, Lindsay *et al.* 2002, p.321)

This leads to the following proposition:

> ***Proposition P9: Productive researchers are better placed to supervise dissertation and project work***

Jenkins *et al.* (1998) and Neumann (1994) identify a danger that researchers can potentially distort the curriculum with their own research, at the expense of providing a more holistic view of the subject area. This is particularly so when 'a teacher's individual research and research interests were seen to dominate, particularly at the expense of the aims of the course' (Neumann, 1994, p.335). This view surfaces in sometimes subtle ways. For example, Jenkins *et al.* (1998, p.134) report the experience

of an anthropology student when considering a research topic was being steered towards something the lecturer was interested in 'trying to put her angle of research on it, and didn't like mine at all'.

However, Lindsay *et al.* (2002) report that post-graduate students tend to believe that faculty research should be seen as useful, interesting and relevant. Such a belief requires a judgement on the relationship and suitability of a lecturer's research to student learning. That is, to benefit from research, students need to be stakeholders in academics' research (Brew, 2006). This leads to the following proposition:

> ***Proposition P10: Productive researchers may distort the content of the curriculum with a desire to include their own research***

The curricula of some professionally oriented disciplines such as accounting (Zeff, 1989a), the built environment (Webster, 2002; Griffiths, 2004) and healthcare (McKee, 2002) are largely determined by professional bodies. Therefore the inclusion of research at the expense of syllabus coverage demanded by professional bodies, could conceivably lead to content gaps in the professional curriculum.

However, the prescriptive nature of the professional curriculum in accounting has drawn criticisms from accounting educators for its emphasis on techniques rather than concepts (for example, Zeff, 1989b). Therefore the inclusion of contemporary research alongside a professionally-oriented accounting curriculum with its significant focus on reporting rules and procedural techniques creates a tension. Such a tension could be creative, leading to the identification of the limitations of existing techniques and methods. Alternatively, the inclusion of research could overload an already cramped accounting curriculum. This leads to the following proposition:

> ***Proposition P11: Using contemporary research creates a potential tension with the professional curriculum***

Researcher issues

Issues relating to faculty have not been ignored in the literature. Both Brew and Boud (1995) and Robertson and Bond (2001), commenting

on the limitations of correlational studies, identify a need to consider academics' experience of the research-teaching nexus. Using multi-method based research undertaken with 17 lecturers in New Zealand, Kane *et al.* (2004) report that interviewees believed teaching can stimulate research. For example, one academic states (p.297):

> *Some of my best research ideas have come out in the course of teaching in an area that is not necessarily something I do a lot in, but I'm reading it up for my teaching and think 'oh that would be really interesting, why don't we do that?'*

The issue of how faculty experience the understanding of their subject matter and the relationship of this understanding to their experience of teaching was considered by Prosser *et al.* (2005). Academics who experience their subject in atomistic ways without integration, tend to be more information transmission and teacher-focused in their teaching. Faculty with a more integrated and holistic understanding of their subject are more inclined to teach conceptual material. They conclude (p.154):

> *We believe that one way in which academic teachers can further develop their experience of understanding is through their research – the scholarship of discovery. Other ways may be through the scholarship of integration and application. In all cases the academic teacher would need to intentionally engage in scholarship to problematise their understanding of their subject matter.*

In accounting, Hermanson and Hermanson (1996) suggest integrating teaching and research as one strategy to increase research productivity. This leads to the following proposition:

> ***Proposition P12: Teaching stimulates the researcher's thoughts***

Mitchell and Rebne (1995) tested the proposition that some time devoted to teaching and consulting are conducive to research output by

fitting continuous piecewise linear regression models to data obtained from US academics. They find that a combination of the complimentary role between teaching and research and the economy of time variables. That is, there is some optimum balance in teaching and research workload. Specifically, their findings support the view that that up to eight hours of teaching per week and four hours per week of consulting serves to increase research activity.

In accounting, Coppage and Baxendale (2001) describe the synergistic benefits of integrating teaching and research. Examples in which the two activities are synergistic include: students' bibliographies keep the educator up-to-date relevant to their research interests; and assistance in the construction of literature reviews in new research interests. Collectively these findings lead to the following proposition:

Proposition P13: Teaching allows the researcher to identify gaps in their knowledge base

One interpretation of those correlational and meta-analytic studies that find a null relationship between teaching and research is that the two activities require different characteristics. Drawing on a critical analysis of the academic role, Barnett (1992), Romainville (1996) and Webster (1985) propose that teaching and research are different roles requiring different personal qualities. This leads to the following proposition:

Proposition P14: Research and teaching require different sets of personality characteristics

Goode's (1960) theory of role strain suggests that committing time and energy to one job role comes at the expense of another. Therefore committing time to teaching necessarily comes at the sacrifice of research or consultancy activity. For example, some accounting academics undertake consulting activities or are involved in the activities of professional practice (for example, tax). Such a proposition is supported by studies reporting that teaching load is negatively associated with

research output (Fox, 1992; Noser *et al.*, 1996; Bellas and Toutkoshian, 1999; Porter and Umbach, 2001). This leads to the following proposition:

Proposition P15: The time available to undertake research is limited by other academic activities

Rewards issues

The inclusion of teaching in a researcher's work activity may also act as a source of interference to their research. Considering faculty perceptions of workload in Spain, Vidal and Quintanilla (2000) report that excessive teaching and establishing new educational programmes hinders research. Serow (2000) reports that many research-active faculty see teaching and research as competing activities, largely as a result of the academic reward structure. This leads to the following proposition:

Proposition P16: Researchers have limited time, energy and commitment to undertake teaching as well as research

Fairweather (1993a) identifies that teaching is not a significant factor in faculty rewards and publishing research was the most valued activity. Similarly, faculty who publish research are paid more than peers who spend most of their time on teaching (Marsh and Dillon, 1980; Fairweather, 1993b, 1994). Leslie *et al.* (1998) find that chief academic officers, along with other colleagues, use research publications to measure the effectiveness of teaching. This approach they term 'regressive determination', which is a result of needing to evaluate others in the presence of conflicting norms for scholarly assessment. Considering the motivations of faculty in Taiwan, Tien (2000) reports that faculty who seek promotion publish in journals, at the expense of other academic duties. Collectively these findings lead to the following proposition:

Proposition P17: Faculty evaluations are likely to emphasise research productivity over other academic activities

Ramsden and Martin (1996), surveying 1,489 Australian academics, reported that 95% of respondents believed that teaching should be highly valued, yet only 37% agreed that it was. Furthermore senior faculty, i.e. Professors and Associate Professors saw research as their main academic interest. More junior faculty, i.e. lecturers and senior lecturers were inclined equally to teaching and research. These findings suggest that research, rather than teaching, is rewarded in the promotions system, at least in Australia. This finding leads to the following proposition:

Proposition P18: Teaching alone is unlikely to enhance promotion prospects

Ramsden and Martin (1996), conducting a survey of institutional polices in Australia (N=32) to recognise good teaching, identify that only 25% of respondents had developed criteria for identifying the contribution of research and scholarship in teaching. Other authors suggest that the increased specialisation of knowledge means research is remote from what students need to know, leading researchers to separate their research from their teaching (Smeby, 1998; Brew, 1999). Robertson and Bond (2001) suggest the way in which faculty development tends to emphasise teaching, rather than research, encourages further separation rather than integration. Collectively these observations lead to the following proposition:

Proposition P19: There are limited rewards for creating a research-teaching nexus

Summary

In broad terms, the extant higher education literature identifies a range of issues that influence the research-teaching nexus. For the sake of clarity, these are grouped into four categories. These are labelled student issues, curriculum issues, researcher issues and rewards issues – see Figure 2.

It is important to recognise that this framework is international, multi-disciplinary and includes research which could be considered by

some as dated. The issue of time is important, as the environment of higher education is constantly changing with academics and universities subject to a plethora of temporal demands, for example: increase research productivity; enhance student support; examine employability; commercialise research; and make education and the profession more inclusive. Initiatives wax and wane, so strategy at any level is rarely static. With this 'health warning', five important conclusions can be drawn from the literature:

1. Students tend to view faculty research in a positive light in three ways. First, students value being taught by researchers as they view these faculty as expert in their area. This adds significant credibility to the programme of study. Second, seeing faculty as researchers allows students to see research as a viable career choice, in a similar vein to being exposed to practitioners during an industrial placement. Third, faculty research can improve student learning as it gives students a sense of faculty as learners themselves, rather than transmitters of knowledge or assessors.

2. However, faculty research can also potentially influence teaching in some negative ways. For example, research active faculty may not be readily available to support students when they have the competing pressure of undertaking research. Also, there is the risk that faculty keen to communicate their work may pitch their classes too high. In addition, the professional nature of accounting emphasises learning 'how to do a job', or 'become a business leader' and acquiring significant volumes of technical knowledge along the way. This is in contrast to broader educational objectives such as developing higher level intellectual skills.

3. Considering the curriculum, research is said to enhance the value of knowledge, by making learning cutting edge, rather than a selective body of past research and knowledge. The inclusion of contemporary academic research promotes critical enquiry by students, forcing them to address contemporary issues in accounting, buisness and the social

and economic environment. Researchers are sometimes also seen as the only credible supervisors of student projects and dissertations, as they too are actively engaged in the business of undertaking study and writing up findings in a competitive environment. In addition, pressures to include research can distort a curriculum, especially when competing pressures exist to include professional studies.

4. Teaching is also said to help researchers identify gaps in their own knowledge and stimulate their thinking. However, these benefits are achieved at the cost of role strain, whereby performing one task must invariably limit productivity in another. Role strain is significant for academic workers, as teaching and research require different attributes: the gregarious actor versus the bookish archive librarian. Alongside teaching and research, many academics also need to find time to administer, manage, lead and consult.

5. Finally, in a higher education sector driven increasingly by managerial, rather than collegial, mechanisms it is necessary to consider the extrinsic rewards available. Evidence points to research and administration being more highly valued than teaching. A research-teaching nexus may sound attractive to higher education leaders, but, at this juncture, few explicit rewards exist for creating such a connection.

4. Research findings

Key findings from interviews with professional bodies

Stakeholders' influence on the professional syllabus

To examine how academic research might influence the professional accounting curriculum requires an understanding of who the stakeholders of professional accounting bodies are. Overwhelmingly, all six bodies identified employers as a key stakeholder to be consulted on the curriculum. In some instances, students' and newly qualifieds' views would be sought. However, employer perspectives were paramount, for example:

> *The big picture of, you know, what we need to be assessing, how we need to be assessing it. The themes can come more from the employers because we have to be relevant and the employer... I mean we're always benchmarking our qualification with employers saying like 'Is it fit for purpose? Does it meet your needs? Does it reflect what they're actually doing in the workplace? Does it equip them to do things in the workplace?' On the big picture and big topics, if the employers say 'We don't want it,' it doesn't go in. Ultimately we have a commodity qualification which we want employers to take and train their staff in and there are other competing qualifications out there. If we come up with something that's not recognised as relevant to the needs of the employer, they're going to say 'Why the hell have you got that in there?'* (PB3)

In general, the professional bodies were keen to produce newly qualified accountants who could be quickly equipped with the necessary technical skills. This would enable them to earn fees from clients or be placed in more responsible managerial positions in industry, commerce, or public services. Consequently, 'the big picture' and 'the big topics' are frequently ignored. For example, world poverty, the environment, and

the (lack of) regulation of financial markets would rarely be considered by undergraduate students. Such a situation resonates with longstanding academic criticisms of accounting education. Specifically, the focus on technical rules, rather than principles, makes for poor accountants in the long-term (*e.g.* Albrecht and Sack, 2001; Cooper *et al.*, 2005; West, 2003; Williams, 2004; Sikka *et al.*, 2007).

Role for academic research in the professional curriculum

In general, academic research was seen as only having potential to impact the professional curriculum. This reflected two factors. First, the technical nature of the curriculum and the need to teach significant quantities of accounting techniques and rules, limited the scope for the inclusion of academic research. Second, a belief held by some interviewees that academics' individual research interests greatly influence their beliefs on what the curriculum should contain. For example, a social and environmental researcher may see sustainability work in all its guises, such as assurance, business and professional ethics, reporting, internal control and accountability, as needing coverage within the curriculum. Therefore, academics and their research interests were viewed as somewhat partisan and detached from the needs of professional students and employers. One professional body representative thought that there was an absence of a forum to enable such a dialogue to take place:

> *I suppose… I think one of the things we maybe need to try to think about is a forum where there's a dialogue between the actual academics who are thinking about the research areas they're going to be researching in and a professional body or professional bodies saying 'Well, why are you doing that? What relevance has that to me?' and understanding better… the things that are coming down. … at the moment… there is not an on-going, big dialogue between* [name of professional body removed] *the* [education] *department and researching academics. There isn't that dialogue. I don't think there's a forum for that dialogue.* (PB3)

Organisation of professional accounting bodies: education and research

For five of the six bodies interviewed, research and education were structurally separated. In only one, CIMA, were education and research located within the same function and this was a recent development. For the five bodies where research was separate, this reflected a view that research and education were quite different things.

Generally, research was seen as either related to technical activities of the relevant body, or something 'out on its own'. Education is seen as an activity that generates substantial income for the professional bodies with student fees, examinations, training revenue and the eventual annuity created by the successful student paying a membership for the rest of their professional career, along with other associated revenue relating to continuing professional development.

Why do professional bodies fund academic research?

As universities and accounting graduates provide the link between education and research in professional bodies, the finding that professional bodies fund academic research to support individual academics and the subject of accounting is as expected. Usually, interviewees regarded this as an 'altruistic' motivation.

Further questioning revealed three underlying motives behind this proposed altruism. One body identified that research support might encourage individual academics to value a particular body which they would subsequently communicate to their students. Supporting research becomes a form of marketing device whereby the grant holder becomes better informed about a body and supportive of its mission. One professional body educator was quite overt about this primary objective for funding academic research:

> *I think one blunt reason for funding academic research is that the professional bodies want to form a good relationship with academics for marketing because the more that academics value a particular*

professional body, the more likely they are to speak well of them in the classroom, the more well informed about that professional body students will be when they finish. So any professional body will want to get good brand recognition amongst the academic community and can use research funding to do that. (PB3)

Second, research provides support for a technical function to make policy recommendations to influential bodies. In such an instance, the body is highly selective of the research theme and methodology employed:

If the topics are seen to be something that will give insight, help develop policy and help inform debate, I think they're definitely some that will help. (PB6)

One professional body prioritised the policy agenda above the links with academics:

One is to affect the policy agenda in the areas that their research strategy follows and I think secondly it's to provide support for academics in university where students come from. ...I think one of the reasons is definitely to keep links with universities where, I guess, the vast number of students come from then do professional qualifications. (PB4)

A third motivation is that research is an objective of the institute. That is, research is a raison d'etre of the professional body, or another interpretation is that, research occurs for legitimacy reasons. Funding academic research locates the body with other professions with potentially higher aspirations and clearly distinct from (lesser) trade associations.

We have a public interest duty... [our funding is] *to benefit and advance.. accounting...* (PB4)

Key findings from interviews with academics

The lack of a nexus

The interview evidence suggests that linkages between teaching and academic research are relatively minimal in accounting academic departments. Fundamentally, the research underpinning accounting textbooks relates to past techniques, rules and concepts. Research does, to a degree, influence the curriculum, but it tends to be confined to a selective body of research undertaken by pioneering academics and professionals, see Kitchen and Parker (1980) for a discussion. Thus the research-teaching nexus in accounting is largely limited to the 'research-led' quadrant (students as audience – emphasis on (historical) research findings) described in Figure 1. The lack of a nexus reflects four factors:

1. *Relatively restrictive role of accreditation and the imparting necessary technical material*

Within this there existed a continuum of views. However, the majority of interviewees saw accreditation as a restrictive force and something that discouraged lecturing staff from developing their own curriculum based on their interests, motivations and skills.

> *The curriculum is totally tied to the Chartered Institute of Accounting* [sic] *- shamelessly so. So in order for students to gain exemptions from specific modules of the professional accounting bodies, they shamelessly link the curriculum and tick boxes in order to achieve that. Which is fine if we are telling our students that they must become accountants when they grow up, but if we are pretending for a second that we are giving an undergraduate education with a view to producing researchers for the future, I believe we are killing any kind of element of knowledge for knowledge sake I think.* (AC17)

Some suggested this was driven directly by student demand. For example:

> *So we'd say mine would be looking at the exemptions for the accounting courses, contacting the professional bodies to ensure that, you know, the modules that we're covering within each of our programmes meet what they require us to cover in order that the students, when they complete them, get their exemptions.* (AC7)

Staff resistance also determined the view on the role of exemptions. For example:

> *I think what determines the curriculum there are a number of things. One is the professional body, ACCA, in that we get the maximum exemptions from the ACCA papers and obviously the curriculum has to tie in with that.* (AC16)

When staff were older, and had taught a subject area for a lengthy period, it was likely they might adopt a more conservative approach:

> *It's also got something to do with maybe the age of lecturers at this institution in that I know the average age of lecturers is fairly high in every institution, but here, you know, it's equally high and maybe a little bit higher than elsewhere.* (AC16)

So for some staff, teaching an accredited syllabus is what teaching accounting is about, particularly for professionally-qualified lecturers. As many accounting teaching staff are not research active, the professional bodies' curricula is an accounting degree.

2. *High staff-student ratios in relation to other departments reduces the capacity to include more research material*

When barriers to making the curriculum more research-focused were considered, resource constraints were inevitably identified. In some instances, the resource issue was bundled with accreditation:

> *There is an awful lot of teaching. I know they keep saying 'More people ought to do research. More people ought to do research'. But at the end of the day, it seems to be that everyone's interested in trying to get the students taught and get the exemptions there.* (AC12)

In other instances, the resource-intensive nature of linking research to student learning was evident.

> *Well that's what's really concerning me. If you're teaching, I don't know, a traditional arts discipline in a university with a very low staff-student ratio* [SSR], *I think that's a fantastic idea. Given the kind of SSRs we're working with, I don't know if I want to be deluged with students. I'd be quite interested in the idea, but it would become an awful chore, wouldn't it?* (AC4)

3. *Resistance among faculty to change, with significant numbers of academics not research active*

Academic resistance to change was also evident. Unlike many other university disciplines, many accounting faculty are not research-active and do not possess a PhD (see for example, Brown *et al.*, 2006). Traditional universities have seen a rise in the recruitment of teaching fellows, typically professionally-qualified, but not holding the PhD required for a lecturing post. So to progress, academics need to register for a PhD:

> *We're all being led into this have to have PhDs and all this - could be very specialised areas - and maybe if there was more freedom that people could just pursue what was interesting to them, do you know what I mean, it might link better back into teaching.* (AC13)

At the same time, the level at which staff are expected to teach is changing. Increasingly, taught post-graduate students populate accounting departments, in contrast to the large proportion of undergraduate students and, in some institutions, professional students following professional courses. Tensions are inevitable:

If you teach post-graduate there's an expectation that the people doing the post-graduate [teaching] *are capable of doing their own research. So if you're teaching post-graduate and you haven't done any research yourself, I think that's very unfair on both parties.* (AC14)

4. *The Scottish anomaly*

The status quo is different in Scotland with four-year honours undergraduate programmes being the norm. Historically, a select number of students would progress from the three-year ordinary programme to honours. A three-year ordinary programme would be similar to a three-year honours programme in the rest of the UK. Reflecting employer demand, it is now common for the majority of students in Scotland to follow an honours programme. Scotland, therefore, provides something of a contrast to the norm and, as a form of natural experiment, identifying what happens if accreditation occupies both a smaller proportion of, and the lower reaches of, the curriculum.

With the accredited material covered, staff can develop bespoke optional courses and courses at honours level aligned to their own research interests and perceived needs of students in future years. For example:

By the time they're in the fourth year we're not worried about accreditation and that opens up all sorts of research interests. So my fourth year finance module is basically the things that I'm most interested in researching. So I teach corporate governance, I teach insider trading, dividend analysis and this sort of stuff because by then no worries about accreditation. We're into fourth year, we're into honours and that's a completely different experience to first year teaching where it's completely unrelated to research in my view - certainly my own research I think. (AC3)

Well, like even the research methods course where they're given scholarly papers and are asked to assess them and in other courses,

certainly in the third and fourth year, they have to write appraisals of published research and things like that. So you get a lot of this stuff. [Name of colleague] *does a lot of research-based work with them. I mean 99% of our students do a dissertation for a start, but again third and fourth year they've tons of other projects.* (AC10)

Overall, comments from interviewees in Scotland were positive about the concept and operation of the honours year. An enlarged programme of study appears to have a beneficial impact on student learning and staff motivation.

Conflicting job roles

Employment in the 21st century university requires the academic to fulfil a multitude of roles as a teacher, researcher, a recognised expert, consultant, manager, academic leader, student counsellor, schools liaison officer, among others. Two major sources of conflict were recognised. First, time pressures:

...because time pressures are part of our job and so, you know, I haven't been able to do any research in the last six weeks pretty much because of, you know, sheer volume of students and volume of teaching that I'm dealing with. So in terms of that, that's the only conflict I would say. It's the time conflict between having the two... You know, if we see that my role is two key roles, researching and lecturing, then they've got to be balanced in some way and, as I say, sometimes definitely the research takes a back seat because of the conflicting requirements on my time of the teaching/ lecturing. (AC18)

Having to perform a multitude of tasks inevitably creates conflict, here characterised as time conflict. What is interesting is that the lack of a nexus means that teaching and researching are not seen as compatible. Therefore, the time an academic invests in teaching does not spill-over into research and vice versa. For example:

...researching social/environmental accounting, I suppose the reason I don't teach more of it is the difficulty of actually fitting it into the curriculum. You know, ideally I would like to see a compulsory module, a 20 credit module that all students do, but I just couldn't find room. (AC2)

For some academics without a research background, the demands of teaching meant that the opportunity to start research was delayed:

The reason it took me so long to get involved seriously in research was time pressure I suppose and having come in through very much... You know, coming from a professional background and teaching professional courses to begin with, I suppose originally my role was... I just saw my role as being a lecturer because that's what I understood the role to be and it took me a while to realise that, you know, there was this opportunity of doing research. (AC2)

The second source of conflict was expressed as the different personal qualities required for the different job roles academics were increasingly being asked to perform. When an academic was forced to prioritise activities, research often came to the fore:

I would argue that research is important. It's probably one of the top, but then you will have the argument if you're going to just do research, then why do you have to be in a university because universities are there to teach students. You can go into a research centre or, you know, research institution. You don't have to be in a university to be just a researcher. (AC9)

Research not often seen as vital for the curriculum

Two factors were identified by interviewees as reasons why research may not influence the curriculum. First, there is a significant time lag between the latest research findings being accepted within the curriculum. This is not necessarily because professional bodies do not consume research, more that research takes time to pervade practice. Interview AC10 explained:

> *...there's a hell of a time lag between some research and for it to be integrated into either policy or practice - you know, for professional bodies to take it on.* (AC10)

Second, some interviewees suggested that there was conservatism within the professional curriculum. That is, curricula tends to emphasise the technical and significant change tends to occur only when some seismic shift occurs within the profession. For example, a strengthened interest in business and professional ethics as a response to the global corporate governance and accounting scandals that occurred at the turn of the century. Interviewee AC2, expanded this point:

> *I think the professional curriculum is quite conservative. So although each body amends its curriculum with a big launch/re-launch increasingly frequently, very often the changes are cosmetic and done for marketing reasons rather than being based on research.* (AC2)

No consensus on whether research and teaching go hand in hand

An aim of this research is to examine the relationship between research and teaching. An important finding of this research is that interviewees had quite mixed views about this. A continuum of views were found. At one pole, some believed that researchers made the most enthusiastic colleagues and teachers. These individuals were the most committed to their subject and were committed to promoting change within the discipline and the academic community. For example:

> *If somebody is making the effort to do some research, then they tend to be a fairly enthusiastic, committed member of staff who'll also be good at teaching. I can't think of the opposite. I can't think of any colleagues anywhere I've worked with whose research has dominated to such an extent that they see teaching as a secondary, lesser activity.* (AC2)

Others saw research as an activity that did not necessarily improve teaching with evidence, for example, student ratings of teaching, that some non-research active staff could be very effective teachers.

A middle ground existed, which seemed to recognise diversity in faculty. Enthusiasm for research was not necessarily a bad thing, but that ultimately, research gave staff an advantage:

> *But if you're doing research it generates other academic qualities because if you're good at research and you've learned how to teach, how to help people learn, then you will automatically improve the quality of your teaching in a way that I don't think anything else can help you do it. Research to me is as helpful to the person teaching accounts as having qualified as an accountant. It just gives you that edge that you don't have otherwise.* (AC1)

Key findings from questionnaire completed by academic staff

Response rates

From the population of 1,394 UK accounting academics, 247 useable responses were received, representing a response rate of 17.7%.

Demographics

The demographics of the survey respondents are reported within Appendix 1 in Tables A1, A2, A3, A4, A5, and A6. As might be expected the majority of respondents worked in England, although significant numbers worked in Scotland reflecting the historic strength of academic accounting in Scotland (Appendix 1, Table A1). Two thirds were men

(Appendix 1, Table A2) and over 60% were aged 46 or older (Appendix 1, Table A3). Seventy percent were in a promoted post (Appendix 1, Table A4). As might be expected, teaching was the most significant activity (42%), with research and research-related activity accounting for 33% of academics' time (Table A5). Finally, over 70% had accrued 11 or more years experience as working as an academic (Appendix 1, Table A6).

Questionnaire findings

Four questions were asked at the start to elicit respondents' views on the relationship between their research and teaching. The results are reported in Table 5.

Table 5 Respondents' personal views on the relationship between teaching and research

	Item	Mean	Agreement
1	Teaching activity should be linked to research activity	3.96	M
2	The quality of my teaching is enhanced by my research activity	4.10	L
3	The quality of my research is enhanced by my teaching activity	3.41	L
4	Approximately how much of your teaching is linked to your research	30.6%	L

Notes
1. Items 1-3 reflects the mean based on a scale where 5 = strongly agree to 1 = strongly disagree
2. Item 4 reflects the mean % provided by respondents
3. Agreement shows the level of consensus where: VH, Very high (SD < 0.7); H, High (0.7 ≤ S D. ≤ 0.85); M, Moderate (0.85 ≤ S D. ≤ 1.0); L, Low (1.0 ≤ S D. ≤ 1.15); VL, Very Low (>1.15).

In general respondents believed that the quality of their teaching was enhanced by their research activities, however defined and, to a lesser extent, that their research was improved by their teaching. It is important to note that the level of consensus achieved was relatively low, suggesting many did not feel their research and teaching were linked. In particular, statistical testing (chi-square) identified that those respondents who

had been entered into the 2008 RAE believed that teaching should be linked to research and that the quality of research and the quality of their teaching was mutually reinforcing.

Overall, respondents considered that around 30% of their teaching was linked to their research activity. However, again, consensus was relatively low. To explore the variation in responses a number of statistical (chi-square) tests were undertaken with potential exploratory demographic factors. It was found that experience (in years of service), seniority (possession of a promoted post) and research activity (if entered in RAE 2008) were significant explanatory variables. More experienced, more senior staff and those entered in the most recent research selectivity exercise all reported, to a statistically significant level, that their teaching was linked to their research activity.

However, it is important to realise that a strong positive theoretical and empirical relationship exists between these variables. That is, more experienced staff are more likely to be on a promoted post and more senior staff were much more likely to be entered into the 2008 RAE. For example, over 70% of promoted faculty were entered into the 2008 RAE. Conversely, over 70% of unpromoted respondents were excluded from the same selectivity exercise.

These findings suggest that a research-teaching nexus is a reality for the promoted research-active faculty, but much less so for their unpromoted, non-research active colleagues. However, it is plausible that this finding is open to interpretation, where accounting faculty conceive of research in terms of faculty research, rather than student enquiry, as proposed in Figure 1 ('Implementing the research-teaching nexus' in chapter three).

Questions (items) were devised to capture the matters that describe each of the factors identified in the chapter two from the prior education literatures. Each of the 19 factors is described in terms of a proposition, that is, a positive statement that explains what the researcher would expect to find. These propositions are defined in Table 4 (chapter three).

Survey findings at a proposition level

Chapter three developed a 19-proposition framework, articulated in Figure 2 (chapter three), as a means of communicating the diverse education literature which has considered the topic. Naturally, it is difficult to empirically replicate such a framework which intends to project the diversity and generality of themes examined by education researchers in different subject areas, at different moments in time and in different national and cultural contexts. The 19 propositions then clearly, even starkly, identify what we might expect to find in a generic higher education setting.

With these caveats, it is nonetheless useful to consider the weighted scores on the 19 propositions (see Table 6).

Table 6 Means and level of consensus for 19 propositions

No.	Proposition	Category	Mean		Agreement
P16	Researchers have limited time, energy and commitment to undertake teaching as well as research	Rw	-	4.40	H
P9	Productive researchers are better placed to supervise dissertation and project work	C	+	3.98	H
P15	The time available to undertake research is limited by other academic activities	Re	-	3.85	L
P8	Productive researchers provide students with the tools they need to conduct critical analysis	C	+	3.81	VH
P17	Faculty evaluations are likely to emphasise research productivity over other academic activities	Rw	-	3.77	H
P12	Teaching stimulates the researchers' thoughts	Re	+	3.58	H
P3	Student learning is enhanced through contact with researchers	S	+	3.56	VH
P2	Students exposed to research are more likely to consider a career in research	S	+	3.52	M
P7	Research provides students with a 'cutting edge' to their learning	C	+	3.49	VH
P1	Students value contact with researchers	S	+	3.45	H
P13	Teaching allows the researcher to identify gaps in their knowledge base	Re	+	3.32	H

Table 6 Means and level of consensus for 19 propositions (Cont.)

No.	Proposition	Category	Mean		Agreement
P5	Productive researchers have less available time to support students	S	-	3.31	VH
P14	Research and teaching require different sets of personality characteristics	Re	-	3.27	M
P19	There are limited rewards for creating a research teaching nexus	Rw	-	3.16	H
P10	Productive researchers may distort the curriculum by wishing to include their own research	C	-	3.08	H
P11	Using contemporary research creates a potential tension with the professional curriculum	C	+/-	3.07	H
P6	Research skills are not highly valued by students perusing professional studies	S	-	2.90	H
P4	Productive researchers may pitch the level of their classes too high	S	-	2.65	VH
P18	Teaching alone is unlikely to enhance promotion prospects	Rw	-	2.15	VH

Notes

1. Mean reflects the mean based on a scale where 5 = strongly agree to 1 = strongly disagree
2. Category: C = Curriculum issues; Re = Researcher issues; Rw = Rewards issues; S = Student issues.
3. Agreement shows the level of consensus where: VH,Very high (SD < 0.7); H, High (0.7 ≤ S D. ≤ 0.85); M, Moderate (0.85 ≤ S D. ≤ 1.0); L, Low (1.0 ≤ S D. ≤ 1.15); VL, Very Low (>1.15). ≤ 1.2)

The most highly ranked items tend to relate to positive aspects of the expected nexus, while the least ranked items relate almost exclusively to negative aspects. In broad terms respondents viewed time to undertake research as a major constraint on undertaking other academic activities, which could be equally as worthwhile. Why research is seen as valuable is that it seems to be frequently used as a measure of individual performance in faculty evaluations.

Some of the positive aspects of the mutuality of research and teaching include the idea that active researchers are well-placed to supervise project and dissertation work, now common elements of taught post-graduate education in accounting, and their ability to assist students critically analyse problems. Likewise, teaching itself is seen as a means of stimulating a researcher's thoughts.

The propositions ranked the least are, arguably, the most controversial ones arising from the literature. In particular, respondents

disagreed with the proposition that teaching would not enhance promotion prospects, perhaps because lecturing is a key element of most academics' job roles. Also not finding favour were ideas that students studying a professional programme such as accounting are likely to see research as unimportant; it is plausible that some academics have chosen to integrate their own research and thinking within their teaching and this has found favour with students.

Similarly, ideas that research can distort the curriculum and that researchers may potentially pitch their classes at too high a level were dismissed. These 'controversial' propositions were largely derived from scientific and technical subject areas where moderating forces, such as professional accreditation, are arguably less and where research funding and facilities provide a substantial part of the funding available to a department; in such instances, students benefit from some of the spillover effects of enhanced laboratory facilities and technicians.

Survey findings at an item level

Complete findings are reported in Table A7 in Appendix 1. For ease of analysis, the 10 most important items and 10 least important items are considered here.

Most highly rated items

Table 7 reports the ten most highly ranked items. The most highly ranked items tend to focus on the positive effects of research on student learning (P3) and on curriculum issues, which in particular, promote critical thinking. Conversely, the negative effects of few extrinsic rewards (P16 and 17) are also highlighted.

Table 7 Most ranked items

Item	P	Mean	Agreement
1. Students enjoy learning activities based on real world examples from accounting and finance practice	3	4.48	VH
2. Excessive teaching workload and the establishment of new educational programmes hinders research	16	4.40	H
3. Accounting and finance faculty who publish research are rewarded more than peers who spend most of their time on teaching	17	4.14	M
4. It is clear good scholarship, in the sense of remaining aware of the latest research and thinking within a subject, is essential for good teaching, but not that it is necessary to be active in cutting-edge research to be an excellent teacher.	3	4.09	M
5. Empirically-based accounting and finance case studies provide a means of demonstrating real accounting practice	7	4.03	H
6. Using research as part of a holistic approach to learning assists in developing accounting students' critical thinking skills	8	4.01	H
7. Students enjoy learning activities based on real world examples from research	3	4.00	H
8. Teaching is not a significant factor in faculty rewards and publishing research is the most valued activity	17	3.99	L
9. Integrating accounting and finance research into teaching promotes critical enquiry on the part of students	8	3.99	H
10. A supervisor's expertise in a particular methodology motivates students to use similar methods in their own research	9	3.98	H

Notes

1. Mean is based on a scale where 5 = strongly agree to 1 = strongly disagree
2. P = proposition to which item relates
3. Agreement shows the level of consensus where: VH (SD < .7); H, High (.7 < SD < .85); M, Moderate (.85 < SD < 1.0); L, Low (1.0 < SD <1.15); Very Low, VL (> 1.15)

In general there was a good degree of consensus to all these items, with one exception: 'Teaching is not a significant factor in faculty rewards and publishing research is the most valued activity'. This divided respondents with a good number disagreeing, despite the high score.

It seems clear then that respondents believe that faculty research has a positive effect on student learning, but by and large, such efforts go unrecognised by institutions. An alternative interpretation could be that research facilitates better teaching naturally, where scholarly activity has a positive effect on teaching and research. Researchers also reap the

rewards in other ways: extrinsically via promotions; and intrinsically by promoting more critical enquiry.

Least highly rated items

Those items with the lowest scores are reported in Table 8. Encouragingly, the item with the lowest score was 'My research interest in accounting and finance has meant I have become bored and disinterested in teaching the subject' and a high degree of consensus was achieved. At least it seems that involvement in research does not limit accounting academics interest in teaching the subject.

The other items which achieved low scores generally had a low level of consensus, suggesting there is considerable variation within the sample. These items tend to relate to issues concerning students or extrinsic rewards.

The lowest ranked items include many of the more controversial questions relating to student learning and derived from the education literature such as:

- Accounting and finance students need professional skills, not research skills.
- Students undertaking professionally-oriented courses should focus their learning on 'how to do the job'.
- Teaching staff who are involved in research are more committed to student learning.
- Including specialised accounting and finance research in the curriculum leads to lecturers pitching the course too high.

Respondents then do not see research activity as having a significantly detrimental effect on teaching. However, the level of consensus tends to be low, so a variety of views do exist.

Table 8 Least ranked items

Item	P	Mean	Agreement
1. Including specialised accounting and finance research in the curriculum leads to lecturers pitching the course too high	4	2.85	L
2. Research-active staff are able to provide a better perspective of what is demanded of an accounting/finance professional	7	2.84	L
3. Accounting and finance research publications are frequently used to measure the effectiveness of an academic in teaching	17	2.82	L
4. Accounting and finance academic staff development tends to emphasise teaching rather than research	19	2.74	VL
5. Time devoted to teaching is conducive to accounting and finance research output	13	2.67	M
6. Teaching staff who are involved in research are more committed to student learning	3	2.66	L
7. Students undertaking professionally-oriented courses should focus their learning on 'how to do the job'	10	2.61	VL
8. Accounting and finance students need professional skills, not research skills	11	2.46	L
9. Teaching quality is valued more highly than research at my institution	18	2.15	VL
10. My research interest in accounting and finance has meant I have become bored and disinterested in teaching the subject	4	1.86	H

Notes

1. Mean is based on a scale where 5 = strongly agree to 1 = strongly disagree
2. P = Proposition to which item relates
3. Agreement shows the level of consensus where: VH (SD < .7); H, High (.7 < SD < .85); M, Moderate (.85 < SD < 1.0); L, Low (1.0 < SD <1.15); Very Low, VL (> 1.15)

Summary

This chapter has reported the findings from interviews with accounting professional bodies and interview and survey findings with accounting academics. The main findings are:

- Professional bodies commission research to: support university departments of accounting; develop technical policy; be used to lobby policy makers; fulfil a public interest mission; and enhance their identity as a profession.
- Academics believed that students enjoy the authentic and contemporary nature of research and the potential research holds to sharpen students' critical thinking skills.
- Relatively little interaction occurs between teaching and research in accounting departments in universities. This reflects the presence of accreditation requiring the teaching of significant technical material, resource constraints encountered by university departments and some resistance from staff.
- Research was not seen as vital for the professional curriculum because of: the significant time lag between research becoming accepted wisdom; the need to include significant amounts of technical material; and a desire not to include to so-called 'big picture' or 'big issues' which may not fit with the current thinking of powerful employer groups.
- When research informed teaching, it was generally the case that students were audience, or passive recipients rather than being actively involved. For example, students would read journal articles or consume their lecturer's own research. Therefore, student enquiry was not fostered, for example, by students being asked to undertake some form of their own research. An exception to this was Scotland where a major dissertation by the student was popular within the final year of a four-year honours programme.

5. Conclusions and recommendations

Creating and disseminating knowledge has always been the raison d'être of universities. Significant research conducted in disciplines outside accounting identifies the wide range of methods which academics use to integrate research into their teaching and how teaching inspires their research. A major contribution of this study is the development of a model to aid understanding of the interaction between teaching and research and the factors which are influenced by the research-teaching nexus. This study identifies a lack of integration between research and teaching in the discipline of accounting. This is attributed to three factors:

1. The effect of accreditation in creating a relatively uniform accounting curriculum which requires the teaching of significant amounts of technical material, delivered at, what educators would consider, low or surface levels of learning (see Table 3). While the decision to seek professional accreditation is made by individual universities, the competitive market in which they operate means that they have little choice other than to adopt this strategy, although the extent of accreditation will vary. This leaves relatively little space for the development of research skills or the acquisition of contemporary thinking within the discipline. The exception seems to be Scotland where a four-year degree allows greater scope for the inclusion of higher-level contemporary material and the development of higher level skills.

2. There is little history of attempting to integrate research into the academic accounting curriculum in the UK and Ireland. The teaching of accounting is seen as a separate activity to the process of academic faculty research. Should teaching faculty devote time advancing the boundaries of knowledge in their fields then that is likely to impress their students. So a middle-road aspect of the nexus can, and does, exist in many universities.

3. Resistance is encountered from academic faculty, the sources of which are many and varied. The principal reasons found were: the invasive nature of accreditation; resource constraints; beliefs concerning the impracticality of integrating research into the curriculum; and views that academic research has only a limited impact on the accounting curriculum.

All accounting professional bodies' curriculums are driven to a large extent by perceived employer needs and compliance considerations. In particular, employer groups are concerned to ensure their qualification will enable the newly qualified accountant to undertake a junior management position, or earn fees from clients immediately on qualification, or take-up a position elsewhere. Short-term pressures appear to dominate at the expense of producing reflective individuals with an understanding of accounting principles, the development of accounting itself and the potential accounting offers to mankind. Accounting needs imaginative individuals capable of solving complex problems and communicating solutions to non-technical individuals. From an educational perspective, for example, how can accountants tackle issues such as improving the stability of financial markets, protect the environment, or reduce poverty and tackle world food shortages?

The current needs of employers for technically-ready newly qualifieds sit uncomfortably alongside other developmental initiatives, driven by periodic challenges and crises within the profession and business. For example, how easily does the development of professional ethics, co-exist with technical material concerning financial reporting standards and related compliance activities?

The current lack of a nexus seems largely driven by: (i) conservative professional bodies unwilling to worry employer groups in the highly competitive market that is UK professional accounting education; and (ii) sceptical accounting academics, with relatively fixed views on what education should be and keen to insulate themselves from a creeping tide of administration and managerialism. To a greater or lesser degree, these two parties create a position where academic accounting research

sits on the peripheries, digested by neither students nor practitioners and less likely to be seen as a future source of inspiration or policy.

This research leads to a number of challenges that the accounting profession and the accounting academic community need to address. Specifically, four challenges are identified.

C1 Consider how education and research/technical departments within professional accounting bodies could work more closely together. At present, most professional bodies commission 'focused' and 'relevant' research, with an aim of informing technical policy. Such work is rarely 'blue skies' research. A natural outlet for this work is the professional curriculum and associated learning materials.

C2 Understand that creating the research-teaching nexus is more about inspiring students to undertake scholarly enquiry rather than passively absorbing the content of contemporary research. Findings from interviews with academics were that when research was included within the curriculum it tended to involve students passively absorbing prior research in the form of reading journal or magazine articles, rather than undertaking research. In many other disciplines, student research is seen as a means of active enquiry and central to their development within the discipline. Research skills such as analysis, enquiry, synthesis, and critical interpretation are good transferrable skills for the profession.

C3 If implementing a strategy of integrating research into teaching, recognise that a significant number of negative impacts potentially exist. The teaching research nexus cannot be regarded as a universal good and something educators, administrators, or regulatory agents should strive for uncritically. The four-factor, 19-proposition model developed from extant literature identifies 10 potentially damaging matters that require judicious management and planning to ameliorate their effects.

C4 Recognise that linking teaching to research creates potentially more resources for research. A paradox exists in that even in the most research intensive of departments, research income is a small fraction of total revenue. In many institutions, academic accounting groups are perceived as largely teaching groups with little research grant income. As a result of budgetary cuts associated with the public sector deficit, pressure to reduce costs will inevitably mean research activity is placed under the microscope. An axiom of university education is that quality teaching is underpinned by quality research. If academic research does not directly inform teaching, but exists for legitimacy reasons, to boost the profile of the academic unit or individual academics, public funding for accounting research is increasingly difficult to justify.

References

Albrecht, W.S., and R.J. Sack (2000), *Accounting Education: Charting the Course Through a Perilous Future,* Sarasota, Florida: American Accounting Association.

Annisette, M., and Kirkham, L. (2007), The advantages of separateness explaining the unusual profession-university link in English Chartered Accountancy, *Critical Perspectives on Accounting*, 18, pp. 1-30.

Astin, A.W. (1993), *What matters in College? Four critical years revisited*. San Francisco: Jossey Bass.

Astin, A.W., and Chang, M.J. (1995), Colleges that emphasize research and teaching: Can you have your cake and eat it too?, *Change: The Magazine of Higher Education*, Sept/Oct, pp. 45-49.

Ballantine, J., Duff, A., and McCourt, P. (2008), Accounting and business students' approaches to learning: A longitudinal study, *Journal of Accounting Education*, 26, pp. 188-201

Barnett, R. (1992), Linking teaching and research: A critical inquiry, *Journal of Higher Education*, 63, pp. 619-636.

Barnett, R. (2007), *A Will to Learn: Being a Student in an age of Uncertainty*, Milton Keynes: OU Press.

Bell, T.B., Frecka, T.J., and Solomon, I. (1993), The relation between research productivity and teaching effectiveness: empirical evidence for accounting educators, *Accounting Horizons*, 7, pp. 33-49.

Bellas, M.L., and Toutkoushian, P.R. (1999), Faculty time allocations and research productivity: gender, race and family effects, *Review of Higher Education*, 22, pp. 367-390.

Berry, J.W. (2008), Globalization and acculturation, *International Journal of Intercultural Relations*, 32, pp. 328-336.

Brew, A. (1999), Research and teaching: changing relationships in a changing context, *Studies in Higher Education*, 24, pp. 291-300.

Brew, A. (2006), *Research and Teaching: Beyond the Divide*, London: Palgrave Macmillan.

Brew, A., and Boud, D. (1995a), Teaching and research: Establishing the vital link with learning, *Higher Education*, 29, pp. 261-273.

Brinn, T., Jones, M.J., and Pendlebury, M., (2001), The impact of research assessment: exercises on UK accounting faculty, *British Accounting Review*, 33, pp. 333-355.

Brown, R.B. (2005), Why link your personal research and your teaching?, *Education + Training*, 47, pp. 393-407.

Brown, R., Jones, M., and Steele, T. (2007), Still flickering at the margins of existence? Publishing patterns and themes in accounting and finance research over the last two decades, *British Accounting Review*, 39, pp. 125-151.

Cooper, D.J., Everett, J., and Neu, D. (2005), Financial scandals, accounting change and the role of accounting academics: a perspective from North America, *European Accounting Review*, 14, pp. 373-382.

Cope, C. and Staehr. L. (2005), Improving students' learning approaches through intervention in an information systems learning environment, *Studies in Higher Education*, 30, pp. 181–197.

Coppage, R. E., and Baxendale, S. (2001), A synergistic approach to an accounting educator's primary responsibilities, *Accounting Education*, 10, pp. 239-246.

Cullen, J., Richardson, S., and O'Brien, R. (2004), Exploring the teaching potential of empirically-based case studies, *Accounting Education*, 13, pp. 251-266.

Dart, B. (1998), Teaching for improved learning in smaller classes, In *Teaching and Learning in Higher Education*, edited by B. Dart and G.Boulton-Lewis, Melbourne: ACER Press.

Department for Education and Skills (DfES) (2006), http://www.dfes.gov.uk/hegateway/QA/index.cfm

Diamond, M. (2005), Accounting education, research and practice: After Enron, where do we go?, *European Accounting Review*, 14, pp. 353- 362.

Duff, A. (2004), Understanding academic performance and progression of first-year accounting and business economics undergraduates: the role of approaches to learning and prior academic achievement, *Accounting Education: An International Journal*, 13, pp. 409-430.

Duff, A., and McKinstry, S. (2007), Students' approaches to learning: a literature review, *Issues in Accounting Education*, 22, pp.183-214.

Duff, A., and Monk, E.A (2006), Attitudes of new appointees to accounting and finance departments in the higher education sector revisited, *British Accounting Review*, 38, pp. 193-220.

Elton, L (2001), Research and teaching: conditions for a positive link [1], *Teaching in Higher Education*, 6 (1), pp. 43-56.

English, L., Luckett, P., and Mladenovic, R. (2004), Encouraging a deep approach to learning through curriculum design, *Accounting Education: An International Journal* 13, pp. 461-488.

Fairweather, J. (1993a), Academic values and faculty rewards, *The Review of Higher Education*, 17, pp. 43-68.

Fairweather, J. (1993b), Faculty reward structures: Towards institutional and professional homogenization, *Research in Higher Education*, 34, pp. 603-623.

Fairweather, J. (1994), The value of teaching, research and service, in *The NEA 1994 National Almanac of Higher Education*. pp. 39-58.

Felix Committee (2006), *The supply and demand for accounting PhDs*, American Accounting Association, Sarasota, FL.

Ferguson, J., D. Collison, D. Power, and L. Stevenson. (2005), What are recommended accounting textbooks teaching students about corporate stakeholders?**,** *British Accounting Review* 37, pp. 23-46.

Fogarty, T. (2006), A message from the president, *The Accounting Educator*, XV 1, pp. 1-2.

Fox, M. (1992), Research teaching and faculty productivity: Mutuality versus competition in academia, *Sociology of Education*, 65, pp. 293-305.

Fransson, A. (1977), On qualitative differences in learning, IV - Effects of intrinsic motivation and extrinsic test anxiety on process and outcome, *British Journal of Educational Psychology*, 47, pp. 244-257.

Gammie, E. and Kirkham, L. (2008), Breaking the link with a university education in the creation of a chartered accountant: The ICAS story, *British Accounting Review*, 40, pp. 456-475.

Goldstein, D.L., and Neugebauer, G. (1995), Special preface to R. Feynman (Ed.) *Six Easy Pieces*, London: Penguin Books.

Goode, W. J. (1960), A Theory of Role Strain, *American Sociological Review*, 25, pp. 483-496.

Gordon, C. and Debus, R. (2002), Developing deep learning approaches and personal teaching efficacy within a preservice teaching education context, *British Journal of Educational Psychology*, 72, pp. 483–512.

Grant, M., and Piatt, W. (2008), The cost of excellence, *Times Higher Education Supplement*, 6.3.08.

Gray R, and Collinson D. (2002), Can't see the wood for the trees, can't see the trees for the numbers? Accounting education, sustainability and the public interest, *Critical Perspectives on Accounting* 13, pp. 797–836.

Griffiths, R. (2004), Knowledge production and the research-teaching nexus: the case of the built environment disciplines, *Studies in Higher Education*, 29, pp. 709-726.

Hall, M., A. Ramsay, and J. Raven. 2004, Changing the learning environment to promote deep learning approaches in first-year accounting students, *Accounting Education: An International Journal* 13, pp. 489-506.

Harley, S., (2000), Accountants divided: research selectivity and academic accounting labour in UK universities, *Critical Perspectives on Accounting*, 11, pp. 549-582.

Hermanson, D.R., and Hermanson, H.M. (1996), Maximising research productivity: Some ideas to consider, *Accounting Perspectives*, 2, pp. 269-306.

Higher Education Funding Council for England (HEFCE) (2010), *Recurrent grants for 2009-10*, London: HEFCE.

Higher Education Funding Council for Wales (HEFCW) (2010), *Funding Allocations 2009/10,* Cardiff: HEFCW.

Higher Education Statistics Agency (HESA) (2010), *All HE students by level of study, mode of study, subject of study, domicile and gender 2008/09*, Table 2e, www.hesa.ac.uk/

Higher Education Statistics Agency (HESA) (2011), *Students in Higher Education Institutions 2009/10*, Table 0a, www.hesa.ac.uk/

Hines R.D. (1989), Financial accounting knowledge, conceptual framework projects and the social construction of the accounting profession, *Accounting, Auditing and Accountability Journal,* 2, pp. 72–92.

Hughes, C. and Tight, M. (1995), Linking university teaching and research, *Higher Education Review*, 28, pp. 51-65.

Hunter, A-B, Laursen, S. L., and Seymour, E. (2007), Becoming a scientist: the role of undergraduate research in students' cognitive, personal, and professional development, *Science Education*, 91, pp. 36-74.

Inanga, E.L. and Schneider, B.W. (2005), The failure of accounting research to improve accounting practice: A problem of theory and lack of communication, *Critical Perspectives on Accounting*, 16 (3), pp. 227-248.

Jenkins, A. (2004), *A guide to the research evidence on teaching-research relations*, York: Higher Education Academy.

Jenkins, A. (2010), *Research-Teaching Nexus Workshop*, Paper presented at Glamorgan University.

Jenkins, A., Blackman, T., Lindsay, R., and Paton-Saltzberg, R. (1998), Teaching and research: student perspectives and policy implications, *Studies in Higher Education*, 23, pp. 127-41.

Jenkins, A., Healey, M., and Zetter, R. (2007), *Linking teaching and research in disciplines and departments*, York: Higher Education Academy.

Kane, R., Sandretto, S., and Heath, C. (2004), An investigation into excellent tertiary teaching: Emphasising reflective practice, *Higher Education*, 47, pp. 283-310.

Kelly, M., Davey, H., and Haigh, N. (1999), Contemporary accounting education and society, *Accounting Education*, 8, pp. 321-340.

Kitchen, J., and Parker, R.H. (1980), *Accounting Thought and Education: Six English Pioneers*, The Institute of Chartered Accountants in England and Wales, London.

Lee, T. (1989), Education and Practice in Accounting: Gaps, Closed Loops, Bridges and Magic Accounting, *Accounting and Business Research*, 19, Summer 1989, pp.237-253.

Leslie, P. L., Harvey L. K., and Leslie, G. J. (1998), Chief academic officers' perceptions of the relationship between faculty research and undergraduate teaching, *Sociological Spectrum*, 18, pp. 151-176.

Lindsay, R., Breen, R., and Jenkins, A. (2002), Academic research and teaching quality: the views of undergraduate and post-graduate students, *Studies in Higher Education*, 27, pp. 309-27.

Lowe, A. and Locke, J. (2005), Perceptions of journal quality and research paradigm: results of a web-based survey of British accounting academics, *Accounting Organizations and Society* 30, pp. 81-98.

Marsh, H.W., and Dillon, K.E. (1980), Academic Productivity and Faculty Supplemental Income, *Journal of Higher Education*, 51, pp. 546-555.

Marton, F., Dall'Alba, G., and Beaty, E. (1993), Conceptions of learning. *International Journal of Educational Research*, 19, pp. 277-300.

McGrew, A. (1992), A global society, in S. Hall, D. Held and T. McGrew, Editors, *Modernity and its futures*, Polity Press, Cambridge, pp. 1–102.

McKee, A. (2002), Evidence-based practice in health sciences, *Exchange*, 3, pp. 19-20. www.exchange.ac.uk/issue3.asp.

Mitchell, J.E., and Rebne, D.S. (1995), Nonlinear effects of teaching and consulting on academic research productivity, *Socio-Economic Planning Sciences*, 29, pp. 47-57.

Neumann, R. (1993), Research and scholarship: perceptions of senior academic administrators, *Higher Education*, 25, pp. 97-110.

Neumann, R. (1994), The teaching-research nexus: applying a framework to university students' learning experiences. *European Journal of Education*, 29, pp. 323-39.

Newman, J.H.C. (1907), *The idea of a university defined and illustrated*, London: Longmans, Green, and Co.

Noser, T. C, Manakyan, H., and Turner, J. R (1996), Research productivity and perceived teaching effectiveness: a survey of economics faculty, *Research in Higher Education*, 37 (3), pp. 299-321.

Otley, D. (2002), British research in accounting and finance (1996-2001): the research assessment exercise, *British Accounting Review*, 34, pp. 387-417.

Parker, L., Guthrie, J., and Linacre, S. (2011), The relationship between academic accounting research and professional practice, *Accounting, Auditing & Accountability Journal*, 24, pp. 5-14.

Plumlee, R. D., Kalchelmaier, S. J., Madeo, S. A., Pratt, J. H., and Krull, G. (2006), Assessing the shortage of accounting faculty, *Issues in Accounting Education*, 21, pp. 113-125.

Porter, S. R., and Umbach, P. D. (2001), Analyzing faculty workload data using multilevel modelling, *Research in Higher Education*, 42, pp. 171-196.

Power, M. (1991), Educating accountants: Towards a critical ethnography, *Accounting, Organizations and Society*, 16, pp. 333-353.

Prosser, M., Martin, E., Trigwell, K., Ramsden, P., and Lueckenhausen, G. (2005), Academics' experiences of understanding of their subject matter and the relationship of this to their experiences of teaching and learning, *Instructional Science*, 33, pp. 137-157.

Quality Assurance Agency (QAA) (2009), *Research – Teaching Linkages: Enhancing Graduate Attributes*, Glasgow: QAA Scotland.

Ramsden, P. (1979), Student learning and perceptions of the academic environment, *Higher Education* 8, pp. 411-427.

Ramsden, P. (2003), *Learning to Teach in Higher Education*(2nd Edition), London: Routledge.

Ramsden, P., and Martin, E. (1996) Recognition of good university teaching: policies from an Australian study, *Studies in Higher Education*, 21, pp. 299-315.

Rebele, J. E., Apostolou, B. A., Buckless, F. A., Hassell, J. M., Paquette, L. R., and Stout, D. E. (1998), Accounting education literature review (1991-1997), Part II: students, educational technology, assessment and faculty issues, *Journal of Accounting Education*, 16, pp. 179-245.

Robbins, L. (1963) *Committee on Higher Education, Higher Education: The Robbins Report*, Sections 5.19-5.20, London: HMSO.

Robertson, J., and Bond, C. H. (2001), Experiences of the relation between teaching and research, What do academics value?, *Higher Education Research and Development*, 20, pp. 5-19.

Romainville, M. (1992), Teaching and research at university: a difficult pairing, *Higher Education Management*, 8, pp. 135-144.

Rowland, S. (1996), Relationships between teaching and research, *Teaching in Higher Education*, 1, pp. 7-20.

Säljö, R. (1979), Learning in the learner's perspective. I. Some commonsense conceptions, *Reports from the Institute of Education* Goteborg: University of Goteborg 76.

Scottish Funding Council (SFC) (2010), *General Fund: Grant Letter, Circular SFC/11/2010*, SFC, Edinburgh.

Serow, R.C. (2000), Research and teaching at a research university, *Higher Education*, 40, pp. 449-463.

Sikka, P. (1987), Professional education and auditing books: a review article, *British Accounting Review* 19 (3), pp. 291-304.

Sikka, P., Haslam, C., Kyriacou, O., and Agrizzi, D. (2007), Professionalizing Claims and the State of UK Professional Accounting Education: Some Evidence, *Accounting Education: An International Journal*, 16, pp. 3-21.

Sikka, P., and Willmott, H. (2002), Commentary on 'accountability of accounting educators and the rhythm of the university: resistance strategies for post-modern blues', *Accounting Education: An International Journal*, 11, pp. 191–197.

Smeby, J-C. (1998), Knowledge production and knowledge transmission: the interaction between research and teaching at universities, *Teaching in Higher Education*, 3, pp. 7-20.

Solomons, D., and Berridge, T.M. (1974), *Prospectus for a Profession: The Report of the Long Range Enquiry into Education and Training for the Accountancy Profession*, London: Gee & Co.

Swain, M.R., and Stout, D.E. (2001), Survey evidence of teacher development based on AECC recommendations, *Journal of Accounting Education*, 18, pp. 99-113.

Tien, F. (2000), To what degree does the desire for promotion motivate faculty to perform research? A test of expectancy theory, *Research in Higher Education*, 41, pp. 723-752.

van Rossum, E. J., and S. M. Schenk (1984), The relationship between learning conception, study strategy and learning outcome, *British Journal of Educational Psychology*, 54, pp. 73-83.

Vidal, J., and Quintanilla, M.A. (2000), The teaching and research relationship within an institutional evaluation, *Higher Education*, 40, pp. 217-229.

Ward, J., and Salter, M.. (1990), Law for professional accounting education, *The Law Teacher* 24 (3), pp. 208-28.

Webster, C. (2002), Constructing the research-teaching link in the built environment disciplines, *Exchange*, 3, pp. 15-16. www.exchange.ac.uk/issue3.asp

Webster, D.S. (1985), Does research productivity enhance teaching?, *Educational Record*, 66, pp. 60-63.

Weetman, P. (2007), Teaching Fellowships, in *Shaping the Future*, London, ICAEW.

West, B.P. (2003), *Professionalism and Accounting Rules*, Oxford, Routledge.

Williams, P.F. (2004), Recovering accounting as a worthy endeavour, *Critical Perspectives on Accounting*, 15, pp. 513-517.

Zeff, S. A. (1989a), Recent trends in accounting education and research in the USA: some implications for UK academics, *British Accounting Review*, 21, pp. 159-176.

Zeff, S.A. (1989b), Does accounting belong in the university curriculum?, *Issues in Accounting Education*, 4, pp. 203-210.

Zeff, S.A. (1997), The early years of the Association of University Teachers of Accounting: 1947–1959, *British Accounting Review*, 29 (Supplement), pp. 3-39.

Appendix 1

Tables relating to the demographics of the survey respondents

Table A1 *Country respondents worked in*

Country worked in	N (%)
England	164 (67)
Scotland	56 (23)
Wales	12 (5)
Northern Ireland	12 (5)
Total	244 (100)
Missing	3
Total	247

Table A2 *Gender of participants*

Gender	N (%)
Male	162 (66)
Female	85 (34)
Total	247 (100)

Table A3 *Age group of participants*

Age group	N (%)
26-35	26 (11)
36-45	68 (28)
46-55	93 (37)
56+	59 (24)
Total	246 (100)
Unknown	1
Total	247

Table A4 *Grade and job role of participants*

Grade	N (%)
Research Professor	8 (3)
Professor	50 (22)
Reader	22 (2)
Senior Lecturer	89 (39)
Senior Teaching Fellow	8 (4)
Lecturer	67 (29)
Research Assistant	2 (1)
Total	229 (100)
Unknown	18
Total	247

Table A5 *Proportion of time spent on different work activities*

Job activity	%
Own research	23
Research-related activities	10
Teaching	42
Administration	20
Consultancy	5
Total	100

Table A6 Experience as working as an accounting and finance academic

Years experience	N (%)
<=5	34 (14)
6-10	33 (13)
11-15	38 (16)
16-20	53 (21)
21-25	43 (17)
26-30	19 (8)
31-35	22 (9)
36+	5 (2)
Total	247 (100)

Table A7 Individual item scores ranked by mean

Item	P	Mean	SD
Students enjoy learning activities based on real world examples from accounting and finance practice	3	4.48	0.68
Excessive teaching workload and the establishment of new educational programmes hinders research	16	4.40	0.77
Accounting and finance faculty who publish research are rewarded more than peers who spend most of their time on teaching	17	4.14	0.98
It is clear good scholarship, in the sense of remaining aware of the latest research and thinking within a subject, is essential for good teaching, but not that it is necessary to be active in cutting-edge research to be an excellent teacher	3	4.09	0.92
Empirically-based accounting and finance case studies provide a means of demonstrating real accounting practice	7	4.03	0.74
Using research as part of a holistic approach to learning assists in developing accounting students' critical thinking skills	8	4.01	0.73
Students enjoy learning activities based on real world examples from research	3	4.00	0.82
Integrating accounting and finance research into teaching promotes critical enquiry on the part of students	8	3.99	0.74
Teaching is not a significant factor in faculty rewards and publishing research is the most valued activity	17	3.99	1.12

Table A7 Individual item scores ranked by mean (Cont.)

Item	P	Mean	SD
A supervisor's expertise in a particular methodology motivates students to use similar methods in their own research	9	3.98	0.76
Walking students through the process of accounting/finance research facilitates critical thinking about the whole process of accounting/ finance practice	8	3.97	0.83
Research is valued more highly than teaching at my institution	17	3.93	1.15
Research, rather than teaching, is rewarded in the promotions system at my institution	17	3.91	1.07
Committing time to accounting and finance teaching necessarily comes at the sacrifice of research outputs	15	3.85	1.02
The student as 'customer' concept reduces the time available for staff to undertake research	5	3.82	1.10
Accounting and finance research activity contributes to updating the curriculum	7	3.82	0.91
Research-active academics provide accounting and finance students with an exemplar of a questioning and research approach to learning	8	3.82	0.86
Accounting and finance faculty who seek promotion, publish in academic journals at the expense of other academic duties	17	3.82	1.06
If you are setting people on the road to research then it's... quite obvious, that if the lecturer isn't involved in research themselves, how can they do this?	7	3.74	1.08
It is important for an accounting and finance lecturer to engage in research as the environment is constantly changing	7	3.73	1.08
Teaching and research are mutually beneficial	13	3.71	0.95
Teaching accounting and finance can stimulate research in this area	12	3.69	0.78
My students perceive me as enthusiastic about the course material because of my research activity	1	3.61	1.06
Because my teaching is influenced by my research activity, my accounting and finance students acquire intellectual skills such as recognising and managing complexity and uncertainty	13	3.58	0.89
My institution's promotion policies fail to recognise good accounting and finance teaching	19	3.58	1.20
No wonder research and teaching are seen to be strongly linked - to have a job at all, the academic needs students to teach, and to have a job with prospects of promotion, the academic needs to research. These facts, however, are separate from the notion that your own research and teaching are strongly linked.	14	3.57	1.02

Table A7 Individual item scores ranked by mean (Cont.)

Item	P	Mean	SD
Accounting and finance students enjoy using case studies developed by their lecturers using their own research	1	3.55	0.84
Exposing students to research in accounting and finance is more likely to attract them towards an academic career	2	3.52	0.95
You've got this, in the back of your mind, if you go and see somebody, you know that you can't go and talk to them for too long, because they're always really busy, you know…	5	3.48	0.98
Accounting & finance researchers can potentially distort the curriculum with their own research, at the expense of providing broad coverage of the subject area	10	3.48	1.03
My students consider the courses I deliver to be up to date because of my research activity	1	3.47	0.99
Some of my best research ideas have come out in the course of teaching in an area that is not necessarily something I do a lot in, but I'm reading it up for my teaching and think 'oh that would be really interesting, why don't we do that?'	12	3.47	1.01
The influence of the accounting profession on the curriculum to impart professional skills creates a tension when attempting to link research with teaching	11	3.44	0.98
Accounting and finance teaching and research are different roles requiring different personal qualities	14	3.37	1.19
The inclusion of contemporary research creates a tension within a professionally-oriented accounting and finance curriculum with its emphasis on rules and techniques	11	3.33	0.99
Increased specialisation of knowledge means accounting and finance research is remote from what students need to know, leading researchers to separate their research from their teaching	10	3.27	1.12
Accounting & finance students are stakeholders in their lecturers' research (reverse scored)	6	3.24	1.02
My teaching development is regarded as personal development, rather than a key component of my academic role	4	3.23	1.03
Integrating accounting and finance teaching and research increases the research productivity of the academic	8	3.23	0.97

Table A7 Individual item scores ranked by mean (Cont.)

Item	P	Mean	SD
Research is rightly the first of all academic qualities because it is the academic quality that generates all other academic qualities	3	3.22	1.22
You also need the research to be at the cutting edge, because there's no point in doing a course to find it's outdated when you go out into the real world	7	3.22	1.19
Academic teachers think of students in terms of their own student experience and rarely if ever verify how typical it is from the viewpoint of their own students. Since only a few students become academics, the very opposite of typical	5	3.19	1.05
Students perceive my Accounting and Finance Department as high quality because of the RAE rating	1	3.15	1.05
Research-active staff should spend less time on student support than non-research active colleagues	5	3.13	1.21
The inclusion of research at the expense of syllabus coverage demanded by professional bodies leads to content gaps in the professional curriculum	11	3.09	0.97
Research active faculty adopt a more holistic and interpretative approach to their teaching	7	3.07	1.04
Students rarely see staff research as relevant to their own learning	6	3.04	1.04
As a result of the demands of research activity, I cannot spend as much time supporting my accounting and finance students as they would like	5	2.96	1.17
Teaching staff who are involved in research are more enthusiastic about their teaching	3	2.94	1.21
The inclusion of an academic's accounting and finance research overloads an already cramped accounting curriculum	10	2.94	1.01
It is unreasonable to expect good teachers to be good researchers, and vice-versa	14	2.87	1.32
Including specialised accounting and finance research in the curriculum leads to lecturers pitching the course too high	4	2.85	1.05
Research-active staff are able to provide a better perspective of what is demanded of an accounting/finance professional	7	2.84	1.11
Accounting and finance research publications are frequently used to measure the effectiveness of an academic in teaching	17	2.82	1.11

Table A7 Individual item scores ranked by mean (Cont.)

Item	P	Mean	SD
Accounting and finance academic staff development tends to emphasise teaching rather than research	19	2.74	1.19
Time devoted to teaching is conducive to accounting and finance research output	13	2.67	0.99
Teaching staff who are involved in research are more committed to student learning	3	2.66	1.09
Students undertaking professionally-oriented courses should focus their learning on 'how to do the job'	10	2.61	1.24
Accounting and finance students need professional skills, not research skills	11	2.46	1.13
Teaching quality is valued more highly than research at my institution	18	2.15	1.16
My research interest in accounting and finance has meant I have become bored and disinterested in teaching the subject	4	1.86	0.85

Notes
1. P = proposition to which item relates
2. Mean is based on a scale where 5 = strongly agree to 1 = strongly disagree
3. SD = Standard deviation

About the authors

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About SATER

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SATER's objective is to promote research into, and education of, accountancy, finance and management together with all subjects in any way related. In fulfilling its charitable objectives, it also seeks to provide public benefit by making grants for research projects which result in reliable evidence for use in the development of policy – by professional bodies, standard setters, regulators or governments.

SATER is happy to receive grant applications for research projects from within and outwith the University sector, so long as these utilise sufficiently robust research methodology and the results from the project are likely to provide public benefit.

SATER considers a broad range of grant applications from anywhere in the world. These do not have to be solely for research projects but can be for other research or education initiatives within SATER's specific subject areas, and must be expected to provide public benefit.

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Further details about SATER and the ICAS research programme can be found from the SATER and ICAS websites: scottishaccountancytrust.org.uk/research.html and icas.org.uk/research.

David Spence
Chairman of SATER

April 2012

Universities are centres of both teaching and academic research but how do these two activities interact within the field of accounting in universities? There is currently much focus in the higher education sector on the impact of research on business and the wider society, but what impact does research have on teaching? Is the optimum result achieved from the interaction between teaching and research? Does teaching influence research and vice versa and what impact does academic research have on both university and professional accountancy curricula?

This project involved interviews with accounting academics and education and technical representatives of professional accountancy bodies in the UK and Ireland. A survey was also administered to accounting academics in the UK.

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