

Deconstructing and Reconstructing ‘The Teaching-Research Nexus’: Lessons from Art and Design

Terry Wareham

Fourstones consultancy, Lancaster, UK
t.wareham@btinternet.com

Prof. Paul Trowler

Lancaster University, Lancaster, UK
p.trowler@lancaster.ac.uk

This paper seeks to offer a re-thinking of the underlying concepts behind the notion of “the teaching research nexus”. It is based on an extensive review of the literature, on an analysis of a number of case studies available in this area, and on the initial findings of an empirical study of teaching, research and the links between them in four creative subjects in the UK. This paper has four sections: a summary of the conclusions from our review of the literature; the presentation of a more nuanced understanding of the nexus than is currently available, one rooted in an appreciation of structure as well as agency; an analysis of the initial findings from interviews with academic staff working in four disciplinary areas of art and design; and finally a discussion of the implications of this revised understanding for theory, policy and practice, particularly in attempts to enhance the “nexus”.

Introduction

In the UK there is considerable emphasis on enhancing the links between teaching and research and a large amount has been written about the “teaching-research nexus”, partly as a result of the funding that is available to study it. In Scottish universities it is a priority area as part of the quality enhancement framework there. In the 24 UK Subject Centres whose mission is to enhance teaching within the disciplines it is also a priority for 2007. Many universities are including this issue in policies and appointing staff to develop the links between the two functions. This paper itself arises out of a Higher Education Academy-funded project on “the nexus”. This project involved collecting empirical data from the University of the Arts London in four creative design subjects. The first deliverable of the project was a review of the literature around “the nexus”. This is available on the web (Trowler and Wareham, 2007a). The second deliverable, based on that, involved a development of the concepts and theory in this area and a discussion of the implications of that development (Trowler and Wareham 2007b). This third paper builds on this work by incorporating insights from interviews with a range of staff across the four disciplines of Graphic Design, Design for Performance, Fine Art and Fashion Design. This focus on art and design and the University of the Arts in particular perhaps needs some explanation. In other contexts we have found that an examination of an unusual example of a particular phenomenon has yielded insights and raised important questions about more mainstream versions of that phenomenon (Trowler & Turner, 2002). A particular feature of the fields of art and design is that they are emerging fields for research, but with quite distinctive characteristics which we considered potentially illuminative in this way. A second characteristic that we considered important is that the University of the Arts (UAL) is a relatively new institutional structure and thus institutional influences on perceptions of

research and research activity would be more apparent and less part of the tacit understandings of staff than in longer-established institutions. The UAL is composed of six pre-existing institutions with a diverse array of missions and cultures: Central St Martin's School of Art, Camberwell College of Arts, Chelsea College of Art and Design, London College of Communication, London college of Fashion and Wimbledon College of Art.

This paper is structured in four parts: a very brief summary of the conclusions from our review of the literature; the presentation of a more nuanced understanding of the nexus than is currently available; an analysis of initial findings from interviews with academic staff in these four disciplinary areas and a discussion of the implications of this revised understanding for theory, policy and practice, particularly in attempts to enhance the "nexus".

The literature on the "teaching-research nexus"

Our review of the extensive literature on the "teaching-research nexus" (Trowler and Wareham, 2007a) found it to be characterised by a number of common features.

There is a worrying tendency to view the links between teaching and research in a fairly simple way. Indeed, the term "nexus" itself suggests a concrete and singular set of links between the two phenomena. However, careful analysis of the ways in which the "nexus" as described in the case studies and in the literature shows that in fact that there are multiple sorts of linkages and relationships being referred to and partly for this reason we use scare quotes around the term "teaching-research nexus".

Much of the literature also takes a normative position on the "nexus" issue. The assumption is that teaching and research can and should be better integrated than is currently the case. Linked to this, writing in this area is largely oriented to establishing ways in which the "nexus" can be enhanced. The possibility that disentangling the research and teaching functions might be beneficial to both is rarely entertained. The possible dysfunctions of integrating the two functions, and the potentially difficulties of this task are given very restricted attention. Lucas, for example, writes:

My aim in this article...is to focus on the positive benefits for staff motivation and student learning of engagement in activities that rely on the coexistence of research and teaching, and ... for a rethinking of the continued duality of research and teaching in favour of a more nuanced definition of 'knowledge work' and 'knowledge communities'. (Lucas, 2007, p. 19)

A further general characteristic of this literature is that it tends to be atheoretical. An empiricist ethic prevails, and underpinning this is a foundationalist ontological position, which assumes that a reality exists which can be apprehended by research which is sufficiently robust and extensive. An alternative position is a social constructionist one which stresses situational contingency. At a minimum, theoretical perspectives are in need of clarification in much of this literature or at least tacit theory needs to be exposed, including theories of causality. Theories of one sort or another are always present, but if occluded they can do more harm than good. This is particularly the case if theories in use are inappropriate or just poor.

For the reasons above we characterise the bulk of the literature in this area as being rooted in what we describe (with apologies for the clunky jargon) as normative foundationalist-empiricist instrumentalism.

Linked to this is the urgent need for greater conceptual clarification. As noted above, there are multiple possible meanings of “the teaching-research nexus”, but authors, academics and policymakers tend to slip between these different meanings in an unacknowledged and usually unrecognised way. For example it is often unclear whether authors are referring to the influence on teaching and learning of students doing research, staff doing research, staff practices being informed by research, the curriculum being informed by contemporary research, the research culture of a particular context and so on. The nature of the connections remains similarly unspecified in many cases. “Teaching” and “research” as concepts tend to be treated unproblematically too, eliding significant differences in what these terms mean in different disciplines and contexts.

Finally, with Rowland (2000), we noted a tendency for the conclusions of the literature in this area to merely state the obvious: that in some cases there is a positive influence of research on teaching, and in other cases not; that students both appreciated and are sometimes irritated by staff engaging in research; that “some of the most inspiring teachers are able researchers, but not all; that some prominent researchers are good teachers, but not all” (Rowland, 2000, p. 1). For this reason we eschewed the collection of more empirical data of the usual sort. Instead we opted to study the nature of teaching and of research in quite a unique context, in four creative design subjects within a newly merged university which incorporates multiple sub-institutional contexts. Without going into the details of the selection here, we argue that studying the “strange” can be very valuable in shedding light on what is usually considered the norm. Trowler has used this research approach with effect in other contexts (for example in the study of Deaf academics to shed light on the nature of institutional cultures and socialisation into them: Trowler and Turner, 2002).

Clearly, then, there is a need for more work in this area of a different kind. With some exceptions (notably Angela Brew’s work: please see Appendix 1 for a summary of one aspect of this work) there needs to be better theoretical development, a more dispassionate approach, and more conceptual rigour.

Reconceptualising the “teaching-research nexus”

So what are the different ways in which the term “the nexus” is used? We identify seven different categories of relationship (here called ‘dimensions’) between teaching and research, though Krause’s (2007) finer-grained analysis of Australian University website nexus references identified 17 dimensions, all but one of which are subsumable into our 7. It is important to define these different sorts of relationship in order to help prevent the slippage and the inappropriate unitary use the term “nexus” described above. Table 1 summarises the different uses we found, the benefits mooted in the literature and our reflections on the possible dysfunctions of each dimension (**not** usually found in the literature). The dimensions set out in Table 1 describe a series of possibilities. They can also describe a preferred future state, an aspiration. The ‘gap’ between the current state and the preferred state is the ground policy-makers address.

Table 1: Dimensions of the ‘teaching-research nexus’

| <i>Meaning of ‘nexus’</i> | <i>Practices</i> | <i>Suggested benefits</i> | <i>Possible dysfunctions</i> |
|---|--|---|---|
| 1. Learners do Research | Research-based learning approach Research community practices replicated – peer review, publication on web or paper | Range of skills developed Range of concepts developed Epistemological awareness developed | Learning too slow to cover curriculum Patchy coverage of curriculum Low-quality research with poor ethical control and saturation of respondents with requests for interviews etc Resistance from learners Modularised curriculum and timetable constraints mean impractical to do this |
| 2. Teachers do Research | Teaching cutting edge material Teaching about their research | Develops passion for the subject, communicated to learners Professionalises academic staff Teaching-informed research agenda saves time and effort Skills developed in research re-used in teaching Develops thinking abilities of teachers Engagement with pedagogic research and its outputs improves teaching The effect on individual academics’ identities of having a significant research role alongside and/or linked with their teaching activities* | Teachers spend most of their time and energy on research to the exclusion of students Teaching assistants employed to replace teachers engaged on research resulting in student exposure to lower levels of expertise Students feeling abandoned |
| 3. Teachers and learners research together | Students as research assistants Co-operative planning and implementation of research projects Development of ‘inclusive scholarly knowledge-building communities of practice’ (Brew , 2006, p180) | All of the above benefits, plus more task-oriented and co-operative relationship between teachers and learners | Learning too slow to cover curriculum Patchy coverage of curriculum Students effectively unpaid research assistants |
| 4. Research embedded in the curriculum (Research influences the <i>what</i> and the <i>how</i> of curriculum design) | Research-based learning approach used Cutting edge research and knowledge incorporated in curriculum design Students’ research skills foregrounded Students’ cognitive skills of enquiry foregrounded Pedagogic theory and inquiry-based | Action research feeds into quality review and enhancement Students gain benefits as in 2 and 3 above | Patchy coverage of curriculum Transmission of essential knowledge poorly effected |

| | | | |
|---|---|---|--|
| | practice inform curriculum | | |
| 5. Research culture influences teaching and learning | Teachers and students discuss research together Research culture permeates practices in teaching and learning | Research culture provides motivational context for teaching and learning | Research prioritised over teaching, leaving non-researchers among the staff as well as students feeling abandoned |
| 6. The nexus, the university and its environment | Both teaching and research are linked into the commercial environment and local communities, addressing needs and solving problems. Knowledge transfer takes place “Integration of knowledge production and communication [expands beyond] university walls to encompass schools and further education colleges” (Lucas , 2007, p 18) | Research-teaching links offer opportunities for knowledge transfer The nexus can indicate improved institutional structures and strategies The nexus can indicate improved national policies on enhancing teaching and research Claims about a teaching/research nexus having instrumental value in terms of marketing of programmes & courses and institutional reputation* . | The needs and priorities of employers and others take precedence in the academy. Pure research and critical approaches to society and become marginalised |
| 7. Teaching and learning influences research | Research projects refined and developed as a result of discussion with students (particularly in areas of preparation for professional practice) Pedagogical research conducted in the context of teaching students | Mutual benefit to both teaching and research in a feedback loop. Skills developed in teaching re-used in research | Substantive disciplinary research becomes sidelined. Low quality pedagogical research begins to predominate because of lack of training in methods and relevant social scientific disciplines |

The asterisked items in the table above indicate indexical rather than substantive links between teaching and research: significant not in themselves but in the secondary effects they have. This throws up the important issue of the rhetorical nature of many claims about the teaching/research nexus: that the significant issue is not the nexus itself but the claims made about the nexus and their effects.

We also note that the nature of the 'link' between teaching and research is described differently in the different dimensions and their parts. The following terms are variously used to describe the different character of the linkage, and only a little reflection is necessary to reveal the significance of the differences between them:

- **Link**
- **Inform**
- **Support**
- **Enhance**
- **Add value to**
- **Integrate**

("Integration of scholarship, research and professional activities with teaching and supporting learning" is one of 6 areas of activity for academics achieving the professional standards : HEA 2006)

But if the nature of the linkages between teaching and research have been poorly conceptualised to date, what about the concepts of "teaching" and "research" themselves?

Much of the work in this area has been based on phenomenography. Brew's work on research (2001) uses a phenomenographic approach to identify four orientations to research (see appendix 1) It is well-known that phenomenography has become a standard approach in the study of teaching and learning in higher education (Saljo, 1979; Marton, Dall'alba and Beaty, 1993; Prosser and Trigwell 1999; Trigwell and Prosser, 1996). Thus individual conceptions of research, say, are itemised (as a *journey*, as *trading*, etc for Brew). So are conceptions of teaching (as *conceptual change/student-focused* or *information transfer/teacher-focused* for Trigwell and others). And so are approaches to learning (*deep, surface, strategic* for Saljo (1979) and others).

Yet a growing body of literature has begun to question the foundations and approach of phenomenography (Ashwin, forthcoming; Meyer and Eley, 2006). Three problems are significant for the current discussion: there is a failure to acknowledge the significance of social structures for individual behaviour; the individual is privileged over the social group; results tend to be descriptive rather than explanatory. In short the emphasis is on the individual rather than on social interaction.

By contrast we see both approaches to teaching and approaches to research as rooted in more structural ground. When academic staff develop orientations to their teaching and research they do not do so *ab initio*. Rather they draw on resources which can be described as ideological, that is on an already-present framework of values and beliefs about social arrangements and the distribution and ordering of resources (Hartley, 1983). This framework provides a guide to and justification for practices in work contexts, including practices to do with teaching, with research, and the links between them. Table 2 summarises our thinking on this. It is based on Trowler's earlier work (1998) summarising the literature on educational

ideologies from which he distilled four: traditionalism; progressivism; social reconstructionism; and enterprise.

Table 2: Conceptions of research and teaching as ideological

| <i>Ideological perspective</i> | <i>Educational Ideology in relation to teaching</i> | <i>Research Process/Approach/Type</i> | <i>Criteria of value in research</i> | <i>Key ideas</i> |
|---------------------------------|---|---|--|---|
| Traditionalism | Teaching is about transmitting information, induction into the discipline. Information transfer/teacher-focused approach | Disciplinary focus, empirically-based, peer review, clear boundaries between research and other activities (eg scholarship). Often positivist. | RAE-able Of 'tradeable' value among the community of scholars (Brew, 2001) Development of propositional knowledge ('knowing that': Ryle, 1949) | Development of robust new knowledge Propagation to a wider community Agglomeration of knowledge towards 'capturing' truth |
| Progressivism | Teaching is about developing students' minds so they can better appreciate the world, about making them autonomous. Conceptual change/student-focused approach | Can include the above also likely to use interpretive inquiry, critical thinking. There may be fuzzy boundaries between research and other activities | Development of the mind 'Journey' conception of research (Brew, 2001) Development not only of 'knowing that' or 'knowing how' (Ryle, 1949) but of 'knowing' itself: new ways of seeing, new concepts and theories, ways of thinking. | Conceptual and personal development Personal enlightenment Illumination of a field of enquiry or practice |
| Social Reconstructionism | Teaching is about empowering students to see the inequities and structured nature of advantage and disadvantage in the world, and to <i>change</i> it. | Critique, making questions not taking them. Thinking differently, challenging. Clear boundaries between research and other activities | Power for social change Development not primarily of 'knowing that' or 'knowing how' (Ryle, 1949) but of 'knowing' itself <i>for change</i> : new, critical, ways of seeing, challenging concepts and theories, new discourses and tools for deconstruction | Deconstruction Challenging established practices and relations Critique |
| Enterprise | Teaching is about giving students the skills to thrive in their careers and to contribute to the economy. | Integrative, mode 2 knowledge, action research, research skills important, research and business very close, practice-based research. Fuzzy boundaries between research and other activities (eg professional practice) | Value to enterprise economy Development of 'knowing how' (Ryle, 1949): performative knowledge | Value, Global competition, Knowledge economy, Knowledge transfer |

Conceptualising teaching, research, and the links between them as ideological does not reject the findings of phenomenography, but draws on them and incorporates them. Thus Brew's conceptions of research as well as Trigwell and Prosser's conceptions of teaching can be incorporated relatively easily into this table. The difference however is that ideologies provide resources upon which individuals draw on selectively. They are sustained over time by, for example, particular sorts of journals, conferences and social networks. Within different universities there will be varying configurations of these ideological resources, with one or two usually dominant. For individual members of staff ideological orientations go beyond simply conceptions of research or conceptions of teaching or learning into more fundamental issues. They raise and help answer questions such as the following: What are the purposes of higher education? What do I think I'm doing when I teach or do research? What preferred futures do I envisage? What are my criteria for success? How should the university interact with the world outside, especially industry? Which is most important, teaching or research? What are the characteristics of "graduateness"? Many of these issues are extremely relevant to the "teaching-research nexus", though not directly related to that issue.

Although these questions are phrased in the first person singular, they in fact relate to broader ideological trends and resources. Thus in feminist thinking (a social reconstructionist ideology) there are specific approaches to both teaching and research which instantiate feminist principles. In English as a discipline the different ideological branches of Leavisite approach (traditionalism) and critical theory (social reconstructionism) have very different implications for both teaching and research, and the links between them. Similarly in academic law: the Black Letter approach and Critical Legal Studies are poles apart in relation to what to teach, how to teach it, the nature and purpose of research and the possible linkages between the two. These divisions, alternative perspectives, even conflicts within disciplines are entirely missed by approaches to the 'nexus' based on methodological individualism.

Findings from the data

Semi-structured interviews were conducted with 16 academic staff across the four disciplines of Graphic Design, Design for Performance, Fine Art and Fashion Design and across all six institutions which make up the University of the Arts. The scope of the interviews focussed mainly on research, although with some questions related to the connection of research with teaching.

Diversity of disciplines

Much of the literature on the nexus treats the notion of discipline as unproblematic and unitary. Whilst disciplines clearly do share a range of practices and focus it can also be seen that there is considerable diversity within them, as noted above. The data from these interviews confirmed that sense of diversity. As noted above, the interviews within the four selected disciplinary areas were conducted across all six of the constituent institutions of the UAL and it was evident that institutional context was a powerful factor in how individuals viewed their disciplinary research, even where they were from the same or similar disciplinary backgrounds. The causality of this was less clear – it was evident that some individuals had actively selected a particular institution because of its perceived values. In other cases it appeared that the research approach was in part shaped by factors at play within the institution, such as institutional or school research strategies or funding council opportunities which might, for example, emphasise collaborative or cross-disciplinary work.

Also of considerable importance in the shaping of research approaches and ideologies was the personal biography of the individual: professional background, long-held personal philosophy, idiosyncratic opportunities, family history and current responsibilities were particular dimensions of this that became apparent. Some respondents talked explicitly about their sense of discipline frequently qualifying the definition of graphic designer, or art historian, for example, by reference to either creative or academic practices which brought them into a different disciplinary domain. The graphic artist might, for example, indicate influences from historical studies; the fashion designer make reference to critical studies. So whilst the disciplinary context clearly provided a framework within which research practices and philosophies were located there was considerable variation within that framework. The overall picture presented was of a kind of Venn diagram of overlapping and interacting research methodologies.

Nature of research

The nature and definition of the term ‘research’ continues to be a subject of ongoing debate in the creative disciplines. Historically, research in the creative arts has referred to that set of practices which supports the creative process. Respondents referred to the way that this form of research is continuous, often unconscious, eclectic, visual and tactile rather than verbal and unlikely to be goal-oriented in the same way that, say, scientific research might be designed with clear research questions, literature review, methodology and reporting processes. There was a sense that research was becoming more formalised, and this was partly happening through the growth of PhDs in the creative disciplines. The PhD was seen by some respondents as defining appropriate training for academic work within certain disciplines where previously the indicators of esteem would have been more likely to professional or artistic recognition within the particular field.

As well as the growth of the PhD trajectory into academe respondents also referred to the strong influence of the Research Assessment Exercise and of the policies of research funding councils in reshaping the traditional concept of research. Definitions of research for the 2008 RAE for the visual arts it was agreed were quite broad, incorporating exhibited work, publications, curation of exhibitions, performance and so on. Nonetheless, even the act of explicitly framing what was and was not defined as research appeared to have a constraining effect on some of the respondents. For others, the increasing influence of the RAE and more formalised focus on research had served to support new work, giving it a legitimacy and, in many cases, additional resources that it would otherwise not have. One respondent referred to the way in which funding for research had meant that artists were freer to create as they had been liberated from market demand.

An important dimension of the specific nature of research in the visual arts was the nature of the language through which research is conducted and presented. Several respondents alluded to the fact that the language of their work was visual and that learning about their discipline was essentially learning a visual language; one that expresses ideas and emotions as well as alluding to influences and contexts beyond the immediate piece. Some felt that the need to use verbal language about work that, in their view, came out of a process of research might somehow undermine the legitimacy and value of the visual statement. One respondent noted that at undergraduate level students were striving to develop a visual means of expression only, at PhD level, to have to move into verbal analysis and debate about the work.

Another distinctive feature of the approach to research was that of playfulness and uninhibited activity that sought to challenge orthodoxies. Respondents from the areas of fashion design and graphics referred to the importance of play in relation to the creation of new work, talking about techniques to stimulate creativity and playfulness, both in their own work and that of their students.

Ideological positions emerging

In relation to Brew's conceptions of research many respondents felt that different conceptions came into play at different moments, with the two most dominant conceptions being those of the layer or journey when it came to personal choices and preferences. However, there was a recognition of the trading conception as being that which was required by the academic research context. In relation to the four positions described in Table 2 the most dominant position was that of 'progressivist'. Virtually all the respondents spoke about the purpose of their research being to offer insights and critical perspectives both to the research community, the informed lay person and to the wider context of society. There was reference to those aspects of traditionalism which emphasised the mastery of techniques, but there was a sense that this was only ever a means to support the progressivist approach. Similarly some respondents said that there was an element of social reconstructionism, but this might be a by-product of the critical approach in the progressivist ideology. There was quite strong resistance amongst some respondents to the notion that social reconstructionism should be an explicit element of their teaching approach even if it guided their own research and professional practice.

Research and teaching

A strong pattern which emerged from these interviews was the congruence between values and philosophies of research and teaching. Several respondents indicated that they and their students were on a continuum of expertise, where the only substantive difference between them and their students was the degree of experience and recognition. This feature was most strong where the work was largely creative. In this context the academic staff said that they very often learned a lot from their students who might be experimenting with novel techniques or materials. On occasions this would stimulate and inform their own research. Where the disciplinary context was closer to a more mainstream traditional subject there was more distance between the academic and the student with a sense of teacher and taught.

Implications for theory and for enhancement efforts

What does all this imply for our understanding of the 'teaching-research nexus' and what are its implications should we wish to enhance the relationships between teaching and research?

First, in thinking about "the nexus" we would do well to go beyond the emphasis on the individual enshrined in the phenomenographic approach (and the methodological individualism which has usually underpinned efforts to understand it). Nexus issues would be more illuminated in the light shed by an appreciation of wider social structural forces. So, for example, the research assessment exercise (RAE) in the UK has had a tendency to push academics towards a view of research which is in line with Brew's 'trading' conception (Elton, 2000; McNay, 1997; Jenkins, 1995). The adoption of this conception more widely is not a product of many individual choices made agentically but of a policy and power context which needs to be fully acknowledged. Similarly the push towards vocationalism in higher

education (Trow, 1992), what Barnett (1994) calls ‘performativity’, is intimately linked to the enterprise ideological framework. This has repercussions for “the nexus” in a number of dimensions but also goes well beyond nexus issues understood in a restricted way, perhaps most significantly into new discursive modes. At the root of this are issues of power, in particular in terms of thinking about the world and describing it as well as in relation to what becomes difficult to express.

Power issues emerged as significant in the data from our interviews. In all the UAL institutions there was a programme of training and coaching academic staff to be able to articulate their research outcomes in appropriate terms for the RAE: staff were being obliged to reframe what they did in terms of the dominant research ideology of the academy rather than of their disciplinary origins. In the context of teaching the issue of power was also apparent. The way that the respondents spoke about their students displayed a fluidity in authority relationships so that at times the academic was leading students and at other times students were in a more powerful role. The democracy apparent in common teaching practices such as the public ‘crit’ indicated relationships quite different from those exhibited in practices elsewhere such as the formal lecture.

Second, and very much linked to that, it would be beneficial to enhancement efforts to see orientations to teaching, learning, and research (and so the linkages between them) as drawing on wider ideological resources which have structural roots. These ideological resources are articulated differently in different disciplines, but have social structural roots in (for example) journals, conferences and social networks of academics with different ideological orientations. Where agency is applied it is activated differentially in a particular social-structural context. Resources, both discursive and otherwise, are already available for academics to draw upon – they do not invent their conceptions of teachings anew. This means that to some extent it is possible to see patterns in ways of thinking, and thus in likely responses to enhancement efforts, for example where there may be congruences between new developments and established attitudes and associated practices.

Third, developing that theme, a few moments’ reflection on Table 2 will reveal that there will be congruence between some understandings of research and some understandings of teaching, while at the same time there will be antipathy between other sets of understandings. These are ideologically-founded sets of compatibilities and incompatibilities. Some combinations are amenable to enhancement in terms of the nexus while others are much less so. So (to revert to phenomenography for a moment), Drew’s (2004) teaching orientations category 4 *Teaching as helping students change conceptions (using self-directed research to develop conceptual skills)* might easily be incorporated into some versions of the nexus, particularly in contexts where Brew’s (2001) concept of research as a personal journey (also her category 4) is prevalent. It is more difficult to envisage enhancement of the nexus where the conception of research is a ‘trading’ one (Brew) or where teaching is seen as oriented to professional practice in the creative industries (Drew). But again, these are not just about individual academics’ orientations: such orientations are epiphenomena of wider educational ideological positions. In this case these two category 4 orientations are indicative of a progressivist ideological stance more generally. Thus for example in a university or department where a traditionalist educational ideology is prevalent, there will be no difficulty with the ‘teachers do research’ dimension of the “nexus” (dimension 1 in Table 1) or even dimension 4: research embedded in the curriculum. But managers and change agents there would experience considerable difficulty in trying to introduce other dimensions of the nexus such as the more radical versions of dimension 3 in Table 1 or the more industry-oriented

version of dimension 6. This would be especially difficult if there were a simultaneous attempt to introduce understandings of teaching and research which are compatible with those dimensions of the nexus.

So, finally, in terms of institutional policy, in a university seeking to enhance “the nexus” managers and policymakers would do well to ask the question: ‘what are the predominant ideological orientations to research and to teaching and learning in this university context and how would they have to be changed in order to enhance the ‘teaching–research nexus’? This question goes beyond individual academics’ ‘orientations’ to research and teaching (the boundary of interest of phenomenography), moving into the cultures found within the institution concerned. These cultures will vary according to departmental and other academic and social groupings. In addition, the multiple cultural configuration (Alvesson, 2002) of one institution (say an ex-polytechnic or community college) will be quite different from that of another (say an elite university) and this will be very significant indeed for the ideological configuration found there and hence for “the nexus” itself. The prospects for change and the most appropriate dimensions of the nexus that might be the focus for change efforts in these two contexts will be quite different. In some contexts some dimensions will be amenable to change, in other contexts those will be rigid and very difficult to shift.

Note

The authors gratefully acknowledge the assistance of the Creative Learning in Practice Centre for Excellence in Teaching and Learning, based at the UAL, in facilitating the research on which this paper is based.

<http://www.chelsea.arts.ac.uk/cetl.htm>

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Appendix 1: Brew's Findings on Conceptions of Research

Domino orientation: “research is viewed as a series (often a list) of separate tasks, events, things, activities, problems, techniques, experiments, issues, ideas or questions, each of which is presented as distinct.” (Brew, 2001, p 276). The domino metaphor describes the ways in which these separate tasks can be configured in a variety of patterns. The domino effect (sequential tumbling) also applies – other problems may be solved after one has been cracked.

Trading orientation: In the foreground here are “products of research: publications, grants, and social networks. These are created and then exchanged in a social situation for money, prestige or simply recognition.” (ibid p 277)

Layer orientation: “It is helpful to think of this variation as describing two or more layers. Data, previous theories or ideas are initially in the foreground. There is an internal orientation, where the researcher is bringing to light the ideas, explanations and truths lying in the background by illuminating or uncovering the underlying layer. The researcher is absent from the focus of awareness.” (ibid, p 278)

Journey orientation: “Encounters with the data are viewed holistically as transforming theoretical and experiential understandings of the issues which are the focus of interest. The researcher grows or is transformed by this. The content or topic of the investigation is less important than the issues or underlying questions posed, or the ways in which they dovetail with the researcher’s life or career. The researcher is central to the focus of awareness.” (ibid p 279).

Conceptions of Research (Adapted from Brew, 2001, p 280)

| Conception | Characteristics | Processes |
|--------------------|--|---|
| Domino conception | sets (lists) of atomistic things: techniques, problems etc. These separate elements are viewed as linking together in a linear fashion; | a process of synthesising separate elements so that problems are solved, questions answered or opened up; |
| Layer conception | data containing ideas together with (linked to) hidden meanings; | the process of discovering, uncovering or creating underlying meanings; |
| Trading conception | products, endpoints, publications, grants and social networks. These are linked together in relationships of personal recognition and reward; | a kind of social market place where the exchange of products takes place; |
| Journey conception | the personal existential issues and dilemmas. They are linked through an awareness of the career of the researcher and viewed as having been explored for a long time. | a personal journey of discovery, possibly leading to transformation. |