Professionalising Teaching Practice in Higher Education: a study of disciplinary variation and ‘teaching-scholarship’

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ABSTRACT

There has been extensive research in the last few years on adapting teaching to differences among learners, on the social and institutional context of teaching in higher education and, more recently, on the theory and methods of research on teaching. Less attention has been paid to how academics from different discipline areas actually prefer to engage in teaching-scholarship. The terms ‘teaching-scholarship’ and the ‘scholarship of teaching’ are used interchangeably in this article to include both ongoing learning about teaching and the demonstration of teaching knowledge. Most studies in this regard have been normative or descriptive. The ‘professionalisation’ of teaching practice in higher education is becoming more important as universities try to respond to an increasingly diverse and discerning student population, issues relating to standards and quality, growing international competition, and generally ‘doing more with less’. This study sought to inquire into the relationship between a number of factors that characterise academics working in higher education and their approaches to the scholarship of teaching. Findings from this exploratory study suggest that discipline and teaching conceptualisation have the strongest influence on teaching scholarship, while qualifications and years of teaching have a moderate impact, and gender and post do not appear to play a significant part. General strategies in support of teaching scholarship that emerge from the study and the literature relate to the importance of educational and organisational development. Future investigations might examine institutional ethos, work distribution and climate factors and their relationship to promoting teaching scholarship in different types of higher education institutions.

Introduction

The Student Experience

While the rhetoric about teaching and learning in higher education is certainly in the right direction (in, for example, mission statements), the reality of the undergraduate experience in the early part of the twenty-first century may be less so, and one wonders whether much has really changed since the time Ted Marchese (1998), former editor of Change magazine, worked as a lecturer a number of years ago: ‘What these students were good at … was feeding back correct answers; they had mastered the art of short-term memory and recall’ (see also Boice, 1992, p. 19; Senge, 2000, p. 276). Nor is this perception exclusive to writers and educationists. Furedi (2001), a sociologist at Kent University in the UK, cites a recent MORI survey ‘of more than 1,000 students in which four out 10 students believed that their courses did not challenge them intellectually’. Most went to university to ‘gain qualifications’ and just
21% stated that they attended university ‘to learn more about the subject in which they were interested’ (p. 15).

In spite of our new understandings about how people learn and increasing opportunities for reaching learners at their level, we are left with failure and attrition figures that should be cause for some discomfort and even alarm. In the USA, the National Center on Postsecondary Teaching, Learning and Assessment (1995, p. 9) reports that ‘Over half of all students drop out during the critical first year of college’. Australian student failure rates at university stand at 11%, with 30% of students considering leaving their studies during the first semester, ‘which represents $360m per annum financial drain on the tertiary system’ (Zeegers & Martin, 2001, p. 35). In the UK, attrition figures are averaging around 18%, with the highest reported attrition in 1998 at 38% (Higher Education Funding Council for England [HEFCE] 1999). And, while some educationists (e.g. Watson, 2000) report high levels of student satisfaction in the UK, with a high ‘students-into-graduates ratio’, the system does not seem to be catering for a large number of students whose early exits cost up to £200m a year (Russell, 2001, p. 8; Fisher, 2002, p. 12). What should be most worrisome, however, is that the data reveal an upward trend, and with the continuing push on access and ‘massification’, and insufficient financial resources or support in the transition or early years, it may be only a matter of a few years before national figures in the UK and Australia meet those in the USA.

Zeegers and Martin (2001) cite studies in Australia and the USA showing that the leading causes of attrition include ‘curriculum overload, perception of poor teaching, loss of interest in area of study and inadequate advice on academic problems’ (p. 36). These factors may also be at the root of the problem in the UK, where Mantz Yorke (Russell, 2001) told the UK Commons Education Select Committee that attrition ‘could be reduced substantially if universities and colleges offered students better support early in their degree course’.

Values of Academia

One of the main deterrents to realising a more responsive and progressive higher education environment appears to be the tenacity by which the academic community holds on to fundamental values and shared beliefs about teaching and learning, in spite of the evidence that suggests that there might be better ways of doing things (Guskin, 1996; Kaufman et al., 1997). Some might agree with Senge’s (2000) view of higher education today, where:

Individualism and competition still reign, from individual students pitted against one another to individual professors who likewise compete for status, power and often money. ‘Technical rationality’ still ranks as the prevailing epistemology, disconnecting theory from practice and sending young people into the world with heads full of ideas and ‘answers’ but little experience in producing more effective action. (p. 276)

There can be few better examples of a determination to ignore best practice than the continuation of the didactic lecture as the standard method of teaching in higher education. Numerous studies have clearly demonstrated that there are serious pedagogical limitations (see Bligh, 1998) associated with this methodology. Johnson et al. (1998) conclude that ‘Talking at students’ promotes lower-level (surface) learning, favours those with an auditory learning style, and does not recognise the limits of the average student’s attention span. In the USA Burch (1997) reports on a study that revealed ‘that in a typical classroom, over 70% of the students are most excited by the external phenomena of people, events, and experiences rather than the internal world of ideas and concepts’.
A New Beginning?

The Boyer Commission, sponsored by the Carnegie Foundation for the Advancement of Teaching (1998), ‘is highly critical of the current undergraduate teaching approaches at universities’, fervently advocating a model of teaching where students have ‘opportunities to learn through inquiry rather than simple transmission of knowledge’:

The traditional lecturing and note-taking, certified by periodic examinations, was created for a time when books were scarce and costly; lecturing to large audiences of students was an efficient means of creating several compendia of learning where only one existed before. The delivery system persisted into the present largely because it was familiar, easy, and required no imagination ... The experience of most undergraduates at most research universities is that of receiving what is served out to them. In one course after another they listen, transcribe, absorb, and repeat, essentially as undergraduates have done for centuries. (p. 11)

Rationales for Study

In a sense, this study is an extension of an earlier article (Lueddeke, 1997), in which it is argued that significant pedagogical concerns that face academics will not be resolved until a more scholarly approach is taken in the development of teaching staff. Tied closely to this rationale is the current concern, expressed by such writers as Barnett (2000), that we need to prepare our students for an ‘unstable’ world, ‘where one’s assumptions are challenged daily’ and where ‘changing standards and the globalization of problems dislodge any felt security over one’s inner frameworks’ (p. 157).

Another motivation for the study was the belief that while much has been written about how lecturers approach their teaching, very little attention has been paid to how they actually prefer to engage in their own professional development, in particular the development of teaching practice. Except for a few studies (e.g. Wright & O’Neil, 1995), many of the writings over the past few years on educational change have been normative or descriptive, and few have dealt with faculty values and beliefs with regard to professionalising teaching practice within disciplinary contexts. One explanation for the paucity of research in this area is that, by and large, disciplinary research is valued more highly than teaching (for a recent review, see JM Consulting et al. [2000], Annex D, p. 12). Another may be that government policy—in the UK at least—has not concerned itself enough with ‘how to gain the support and willing assent of the academic staff’ (Trow, 1998, p. 107; see also Newby, 1999), having relied primarily on external levers to enact change (e.g. cutting unit of resource, linking funding to research activity).

The Study

The present study sought to inquire into the relationship between a number of factors that characterise academics working in higher education and their preferred approaches to the scholarship of teaching. The study was carried out at Southampton Institute (UK) and on a smaller scale at the University of Wales (Bangor).

Three research questions guided the study.

1. To what extent do demographic factors, discipline orientation, and concepts of teaching (see Fig. 1) influence approaches to the scholarship of teaching?

2. What strategies for enhancing teaching scholarship are considered to be the most and least
FIG. 1. Variables studied.

helpful across discipline areas, and which are most preferred by individual discipline groupings?

3. What are possible implications of the findings of the study for educational and organisational developments and the realisation of ‘active, collaborative and progressively more self-regulated learning environments’ (De Corte, 1999, p. 128) in higher education?

**Approaches to Teaching Scholarship**

*Historical and International Perspectives*

Globally, approaches to teaching scholarship now share the general aim of improving student learning. However, different parts of the world appear to have taken varying starting points for doing so. Benjamin (2000, p. 1993), in her study on the scholarship of teaching in teams, observes that in the USA the focus is much more on what teachers do, while in Australia and Europe researchers have placed their emphasis on student learning. The root cause of this distinction may be partly explained by the influence of the German research universities in the mid-nineteenth century, with their ‘emphasis on the discipline rather than the education of young people’ (Bergquist, 1992, p. 23). The renewed value on teaching as scholarship has more recently been brought closer to the notion of ‘professionalism’ (Shulman, 2000, p. 49; see also Brew, 2001, p. 45; Glassick *et al.*, 1997, p. 43), which should, according to some educationists, embrace both the ‘processes and products of knowledge acquisition’ (Kreber, 2000, p. 76).

In Europe and Australia, the focus on the intellectual development of students can arguably be traced back to the pervasive influence of Newman’s *The Idea of a University*, written in the nineteenth century, and his precept that ‘a University … is a place of teaching universal knowledge’ (Ker, 1976, p. 5). This tradition has carried on with more contemporary studies differentiating types of learning (e.g. Marton & Säljö, 1976), work on learning experience (e.g. Entwistle, 1984), and conceptualisations of teaching (e.g. Trigwell & Prosser, 1997).

**Epistemological Considerations**

Attempts have been made to distinguish between the terms ‘scholarship of teaching’ and ‘scholarly teaching’. Shulman (2000) advises that ‘We develop a scholarship for teaching when our work as teachers becomes public, peer-reviewed and critiqued, and exchanged with
other members of our professional communities’ (p. 49). ‘Scholarly teaching’, on the other hand, while closely interrelated to the scholarship of teaching, according to Richlin (2001), ‘impacts the activity of teaching and the resulting learning’.

Although ‘the precise meaning of the concept remains elusive as various scholars espouse different definitions’ (Kreber, 1999, p. 310), the terms ‘teaching scholarship’ and the ‘scholarship of teaching’ are used interchangeably in this article and generally accord with Kreber and Cranton’s (1999, p. 488) observation that ‘the scholarship of teaching includes both ongoing learning about teaching and the demonstration of teaching knowledge’. The ‘scholarly teacher’ is, then, one whose:

\[ \text{ideal will be to become, and remain, well-informed and critically reflective, regarding the entire universe of salient events, activities, intentions and outcomes that comprise the practice of teaching, never forgetting, of course, the matter of degree, and the question of field or disciplinary context. (Andresen, 2000, p. 142)} \]

**Identifying Practices Supporting the Scholarship of Teaching**

While there is now a wide array of resources and programmes to help academics enhance or support their professional teaching practice, there are few theoretical frameworks that are useful in conceptualising and classifying diverse professional development activity. One exception may be Gaff’s (1975) model of staff development, originally used to describe hundreds of staff development programmes in the USA and later widely accepted as ‘a pivotal piece of literature’ (Smith, 1989, p. 179). Gaff identified three main components of staff development: personal development, instructional development and organisational development. Gaff’s model was used to provide categories of analysis to guide the identification of different types of scholarship activity for the *Approaches to Scholarship of Teaching Inventory* (ASTI) questionnaire. Specific items were independently derived from various sources, including referencing the current literature on the scholarship of teaching in the UK and abroad (e.g. Shulman, 2000) as well as extrapolation of findings from doctoral studies (e.g. Loane, 1994) and results of surveys (e.g. Nadeau, 1993; Wright & O’Neil, 1995). Items for ASTI were also scrutinised to determine the type(s) of change strategy preferred by academics using Lindquist’s (1978) typology of approaches to academic change (i.e. social interaction, human problem-solving, rational and political). A limited investigation at the Southampton Institute (\(n = 19\)) suggested that academics generally favoured social interaction and rational strategies as ways of engaging in change, including developing their understanding of the scholarship of teaching.

**Factors Influencing Approaches to Teaching Scholarship**

**Disciplinary Orientation**

Disciplinary differences have been studied by a number of educationists over the past few decades (see, for example, Biglan, 1973; Kolb, 1981; Donald, 1986; Moses, 1990; Becher, 1994; Healey, 2000) and appear to confirm that advances in the scholarship of teaching will occur more readily if they are closely aligned to the conceptual structure and epistemology of the discipline. Healey (2000, p. 173) gives two reasons for this: the primary loyalty of academics is to their subject and profession, and ‘the strong perception among staff that there are significant differences among disciplines in what academics do and how these activities are described and valued.’ These differences ‘extend to teaching and research and involve different concepts of scholarship’ (Moses, 1990, p. 372; see also Huber, 1999, p. 3) and,
according to Donald (1986), occur at four levels: ‘in the nature of the concepts used; in the logical structure of the discipline; in the truth criteria used; and in the methods employed in the discipline’ (p. 267). On the other hand, if the notion of disciplinary orientation is pressed to extreme, there may be a downside, as Huber (2000, p. 5) notes, ‘One’s own disciplinary style may give direction to one’s own work … but it can also limit one’s appreciation of other people’s work’ (see also Gibbs, 2000; Gosling & D’Andrea, 2000).

**Concepts of Teaching**

There has been extensive research over the past 15 years or so on adapting teaching to differences among learners, on the social and institutional context of teaching in higher education and more recently, on the theory and methods of research on teaching (e.g. Wittrock, 1986; Ramsden, 1992; Knapper, 1995; Biggs, 1996; Entwistle, 1998). In terms of understanding how academics experience teaching, the work of Trigwell, Prosser and Taylor has been informative. Building on earlier studies (see, for example, Entwistle, 1984; Dall’Alba, 1990; Samuelowicz & Bain, 1992), and noting the lack of research on ‘the associated intentions or motives of teachers’ (Trigwell et al., 1994, p. 75), the authors have investigated the extent to which university teachers conceptualise teaching in different ways using principally phenomenographic procedures (that is, ‘mapping the varying ways of understanding a phenomenon in a given population’; see also Marton & Fai [1999] for a helpful discussion on phenomenography as a distinct research specialisation). Their findings remind us ‘that teachers do not experience the same world, and students do not experience the same world as that which teachers have designed’ (Trigwell & Prosser, 1997, p. 250). One of the main reasons for this variation relates to the approaches to teaching academics ‘adopt for their teaching and the intentions underlying the strategies’. According to this relational research, conceptions of teaching can be divided into two main categories: teachers who see their primary role as transmitting concepts or knowledge (i.e. Information Transfer/Teaching Focus or ITTF) and teachers whose approach to teaching is essentially to help students develop or change conceptions (i.e. Conceptual Change/Student Focus or CCSF). In terms of underpinning learning theory, it is evident that the former is based on behaviouristic learning principles and that the latter assumes a constructivist philosophy. Conceptions of teaching also find their counterpart in conceptions of learning ranging from defining learning as the accumulation of information and concepts to seeing learning as conceptual development and change (Trigwell & Prosser, 1997, p. 247; see also Trigwell, 1995 and 2000).

**A Working Hypothesis**

Synthesising findings from studies in disciplinary styles (e.g. Biglan, 1973; Donald, 1986) with studies on concepts of teaching (Trigwell & Prosser, 1997; Pratt et al., 1998) provided a working hypothesis for the present investigation: essentially, it is argued that given the paradigmatic nature of their disciplines as well as the methods employed, staff teaching hard/pure or applied subjects (e.g. mathematics) would be more likely to bring an ITTF orientation to their teaching, while staff teaching soft/pure or applied subjects (e.g. psychology) would assume a more developmental stance (i.e. CCSF). A corollary proposition is that CCSF staff would be more open-minded about change and innovation in teaching and therefore more willing to engage in learner-centred practices.

**Demographic Data**

Other variables that formed part of the study included gathering information on post or
TABLE I. Significant relationships between demographic factors and approaches to the scholarship of teaching

<table>
<thead>
<tr>
<th>Demographic factors</th>
<th>Approaches to the scholarship of teaching</th>
<th>Chi-square value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest qualification held</td>
<td>#36 Introduce hiring policies requiring demonstration of scholarly teaching</td>
<td>( \chi^2 = 12.76, \text{df} = 6, p &lt; 0.05 )</td>
</tr>
<tr>
<td>Teaching certification</td>
<td>#16 Explore new curriculum designs that encourage enquiry-based learning</td>
<td>( \chi^2 = 7.91, \text{df} = 2, p &lt; 0.05 )</td>
</tr>
<tr>
<td>Years of teaching ((&lt; 5 \text{ years and } 16-20 \text{ years}))</td>
<td>#22 Apply for the UK Institute for Teaching and Learning membership</td>
<td>( \chi^2 = 6.36, \text{df} = 2, p &lt; 0.05 )</td>
</tr>
<tr>
<td></td>
<td>#19 Set up a peer observation scheme</td>
<td>( \chi^2 = 19.83, \text{df} = 8, p &lt; 0.01 )</td>
</tr>
</tbody>
</table>

grade, years of teaching, gender, highest degree or qualification held, and teaching certification.

**Method**

The main instrument for gathering data was a three-part questionnaire. Part 1 concerned demographic data; Part 2 used Prosser and Trigwell's (Trigwell, 1995, pp. 95–96) *Approaches to Teaching Inventory* (ATI, 16 items), which has been shown to be valid and reliable, and consists of two subscales (ITTF and CCSF); and Part 3 was the *Approaches to the Scholarship of Teaching Inventory* (ASTI).

Content validity and internal consistency of the ASTI questionnaire were ensured by distributing the instrument to a purposeful sample of staff members at local and national conferences, asking participants to make suggestions on items that they felt were not clear or useful for the study. The final questionnaire was sent to a random sample (\( n = 300 \)) of teaching staff (in Business, Social Science and Technology) at Southampton Institute in April 2000. Of the sample, 135 (45%) returned the questionnaire (Business Faculty, \( n = 41 \); Technology, \( n = 48 \); and Social Sciences, \( n = 46 \)). A parallel, although smaller scale, study was carried out with Nursing faculty (\( n = 17 \)) at the University of Wales (Bangor) in February 2001.

**Results**

*Demographic Factors Impacting on the Scholarship of Teaching*

Chi-square tests (\( \chi^2 \)) were performed on a number of demographic factors and approaches to the scholarship of teaching, resulting in the identification of statistically significant relationships between several variables (Table I). There was not enough evidence to conclude that there is a significant relationship between post and gender and approaches to the scholarship of teaching.

*Dominant Teaching Concept and Faculty/Discipline Area*

A chi-square analysis was carried out to determine the relationship between faculty and dominant approach to teaching. The findings indicate that there was a significant difference
between faculty/discipline and the type of teaching concept held. Table II summarises the main teaching concepts held by respondents from each of the faculties. Business and Social Science staff show a relatively strong Conceptual Change/Student Focus (CCSF), while over a third of the Technology and Nursing staff appear to hold more of an Information Transmission/Teacher Focus (ITTF).

**Dominant Teaching Concept and Approaches to Scholarship of Teaching**

Tests of significance were performed to investigate the relationship between dominant teaching concept and approaches to scholarship. Statistically reliable and significant relationships were found between the variables holding a CCSF orientation to teaching and several scholarship practices (Table III). There was no significant difference between ITTF (84.2%) and CCSF (89.4%) staff and their valuing of ‘talking about teaching as a normal part of the life of my department’ ($\chi^2 = 10$, df = 2, $p < 0.05$).

**Key Findings**

Frequency distribution tables were produced based on a number of factors including the highest ratings of items on the ASTI survey, perceived priorities in the longer term, priority strategies unique to each faculty/discipline grouping, lowest levels of support and areas where additional information was requested by at least one Faculty.

**Table II. Significant relationships between faculty and dominant teaching concepts**

<table>
<thead>
<tr>
<th>University of Wales (Bangor)</th>
<th>Southampton Institute</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing ($n = 17$)</td>
<td>Business ($n = 41$)</td>
<td>Technology ($n = 48$)</td>
<td>Social Science ($n = 46$)</td>
</tr>
<tr>
<td>ITTF</td>
<td>CCSF</td>
<td>ITTF</td>
<td>CCSF</td>
</tr>
<tr>
<td>17.5</td>
<td>82.5</td>
<td>43.5</td>
<td>56.5</td>
</tr>
<tr>
<td>35.5</td>
<td>64.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table III. Significant relationships between dominant teaching concept and approaches to scholarship**

<table>
<thead>
<tr>
<th>Dominant teaching concept</th>
<th>Approaches to the scholarship of teaching</th>
<th>Chi-square value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual Change/Student Focus (CCSF)</td>
<td>#12 Interest in seminars and workshops</td>
<td>($\chi^2 = 7.46$, df = 2, $p &lt; 0.05$)</td>
</tr>
<tr>
<td></td>
<td>#23 Programmes recognising outstanding teacher-scholars</td>
<td>($\chi^2 = 13.78$, df = 2, $p &lt; 0.001$)</td>
</tr>
<tr>
<td></td>
<td>#24 Engaging students in research activity</td>
<td>($\chi^2 = 14.59$, df = 2, $p &lt; 0.001$)</td>
</tr>
<tr>
<td></td>
<td>#35 Providing mentoring support for inexperienced researchers</td>
<td>($\chi^2 = 9.21$, df = 2, $p &lt; 0.01$)</td>
</tr>
<tr>
<td></td>
<td>#16 Adopting inquiry approaches in classroom situations</td>
<td>($\chi^2 = 9.21$, df = 2, $p &lt; 0.01$)</td>
</tr>
</tbody>
</table>
TABLE IV. Summary of main findings (based on frequency distributions)

Highest rankings of approaches to the scholarship of teaching in descending order across all facilities/disciplines

<table>
<thead>
<tr>
<th>Highest rankings of strategies unique to facilities/disciplines</th>
<th>Lowest level of support</th>
<th>More information wanted</th>
</tr>
</thead>
<tbody>
<tr>
<td>#27 Talking about teaching as normal part of dept life Business</td>
<td>#13 Regular ‘scholarship’ newsletter or in-house journal Business</td>
<td>#18 Annual award scheme for scholarship of teaching</td>
</tr>
<tr>
<td>#39 Students benefit from staff involvement in research of consultancy Technology</td>
<td>#40 Mechanism documentation identifies issues Technology</td>
<td>#17 Foundation of Inquiry unit that regularly</td>
</tr>
<tr>
<td>#25 Appointment, promotion, and reward mechanisms Social Science</td>
<td>#34 Long-term studies on student learning Social Science</td>
<td>#18 Annual award scheme for scholarship of teaching</td>
</tr>
<tr>
<td>#26 Funding or workload planning to support teaching developments and scholarship Nursing (U of Wales)</td>
<td>#16 New curriculum designs (e.g. problem-based learning) Nursing</td>
<td>#11 Publication assistance Nursing (U of Wales)</td>
</tr>
</tbody>
</table>

Discussion

Key Variables Influencing the Scholarship of Teaching

In this exploratory study the main variables that influence approaches to the scholarship of teaching tend to be one’s discipline and teaching conceptualisation. Qualifications and years of teaching appear to have a moderate impact, while gender and post appear not to play any major role. The data also support the working hypotheses suggested earlier in this article; that is, staff teaching hard/pure or applied subjects are more likely to bring an ITTF orientation to their teaching, while staff teaching soft/pure or applied subjects generally take a more developmental (constructivist) approach in classroom situations (i.e. CCSF). While the study yielded a large amount of potentially useful information, three associations might bear special emphasis in the light of the study’s main working hypothesis and future considerations:

- those with teaching qualifications appear to be more open to investigating alternative curriculum approaches;
- the higher the CCSF teaching orientation, the more interest in seminars on research methods, in programmes recognising outstanding teachers, and ways of engaging students in research activity;
- significantly more CCSF staff (79% vs. 50%) are interested in adopting interactive (vs. didactic) approaches in classroom situations.

Another interesting conclusion is that staff who hold higher qualifications, especially if they
also have a teaching certificate evidence strong commitment to continuing with their own professional development. While years of teaching may be only moderately influential in choice of teaching scholarship strategy, it is of significance that the greatest interest in staff development appears to be with those in their early career (<5 years) and late career (16–20 years). This finding is consistent with the literature (Centra, 1976). The mid-career group (average years of teaching ranging between 6 and 15 years) may be less inclined to become involved in such activities as peer review of teaching.

Critchley and Casey (1989), applying Gestalt thinking to organisational analyses, conceivably provide a partial insight for the lack of involvement of those in ‘mid-career’, inferring that they may be ‘stuck’ in their actions caused by a conscious or ‘unconscious’ desire to avoid change or by ‘some level of fear, fear that it won’t be right, or good enough, fear of choosing or making a commitment’ (p. 10). According to the authors, supporting experimenters, confronting ‘old patterns of behaviour’, offering support and building trust may be a few ways of engaging staff in scholarship activity. ‘The worst possible approach’, they advise, ‘is to exhort them to do something’ (p. 10).

Perhaps not surprisingly, two of the highest rated items across all discipline areas relate to staff appointments and workload planning. Dunkin (2001) advises that the problem of increasing workloads, a dynamic which needs to be acknowledged if we are to embrace the notion of teaching scholarship, is compounded by ‘an increasingly uncertain environment in which for many staff there is fear and insecurity about ongoing job prospects’ (p. 1). She posits that there are two main issues that need to be addressed if institutions are to influence the quality of teaching: ‘the resource base and resource infrastructure’ and ‘the capability and understanding of what good teaching is and how it is enhanced’ (p. 3).

Possible Implications of Results at Faculty/Discipline Levels

Table IV suggests that academics in the present sample are generally receptive to continuing to develop their professional expertise in teaching. While staff share priority practices for enabling teaching scholarship, the data also reveal significant differences in terms of intent and preferred strategies, depending, in the main, on disciplinary orientation. For example, staff from the Business Faculty are primarily interested in strengthening their linkages to knowledge resources in order to develop their scholarship. It seems, therefore, that connections with the UK Learning and Teaching Support Network, the US Carnegie Academy for the Scholarship of Teaching and Learning (CASTL) (Cambridge, 2001, p. 4), journals, seminars, and conference presentations would be excellent ways by which a ‘community of scholars’ could be built.

Academics from technology areas are drawn to the establishment of systems to help them with peer review of curriculum documentation (online) and to assist with monitoring developments in the external environment. Remaining current in these fast changing fields is clearly an outstanding scholarship issue. Based on the data, an equally difficult challenge may be to persuade staff with a strong ITTF orientation that there are alternative or more interactive approaches to teaching technical subjects and that these can be potentially more powerful in helping student learning, reducing attrition rates and producing the types of graduates demanded by employers (e.g. Hake, 1998). Small pilot projects connecting ‘opinion leaders’ to credible sources of information and innovative models might be steps to take in progressing the technology scholarship agenda.

Social Science staff members profess the greatest concern for student learning as an area of intellectual pursuit. Along with the strategies already mentioned, it would seem to make sense for institutions to encourage interested staff members from this area to help take a lead
in progressing the scholarship of teaching agenda. Gibbs (2000) confirms the present study’s observation, commenting that ‘it is not surprising that the social sciences have made most progress in making sense of student learning. These, after all, are the disciplines which have developed methodologies and theories specifically to study and explain human behaviour and performance’ (p. 50).

Nursing staff from the University of Wales (Bangor) rated many items very highly but were most concerned with innovative curricula (e.g. inquiry-based) and support for their own research. Data from this group reflects a balanced view of the various elements that are necessary to foster further professionalisation of teaching practice. Similarly to the Technology sample, proportionately more staff appear to have an ITTF perspective which could conflict with the direction being taken toward problem-based learning. As Lindquist (1978) concludes, the main factors for effective change, which may hold important lessons for the Nursing staff as well as for the other faculties, relate to promoting Linkage, Openness, Leadership, Ownership and Rewards (p. 242). Introducing change in higher education is never easy, and it may be useful to recall Lindquist’s sage advice that ‘The best change strategy may be to relate a new idea as closely as possible to traditional standards short of compromising the integrity of the innovation itself’ (p. 23, original emphasis).

**General Strategies for Enhancing the Scholarship of Teaching**

The conclusions suggest that fostering teaching scholarship requires a complex integration between rational, political, social interaction and human problem-solving processes (see Lindquist, 1978; Bergquist, 1992). Given the findings and the literature on change and teaching scholarship (see also Ramsden & Martin, 1996; Lueddeke, 1999), what strategies might be pursued by subject heads and academics interested in progressing teaching scholarship?

**Developing Students through Scholarly Curricula and Teaching**

A central thesis of the study was that the current teaching model in undergraduate higher education is inadequate in preparing students for a world characterised by ‘uncertainty, unpredictability, challengeability, and contestability’ (Barnett, 2000, p. 63). The US report, *Reinventing Higher Education* (Boyer Commission, 1998), while acknowledging some progress, concludes that ‘for the most part fundamental change has been shunned; universities have opted for cosmetic surgery, taking a nip here and a tuck there, when radical reconstruction is called for’. Fundamental reforms in the report call for making integrated, interdisciplinary research-based (i.e. inquiry based) learning the standard, with supportive mentor relationships, seminar learning ‘taught by experienced faculty’, the creative use of technology and the cultivation of ‘a sense of community’.

The present study picked up on a number of the reforms suggested in the US report, nothing especially the importance of involving students in research activity (‘the hidden resource for teaching’ [Senge, 2000, p. 296]). However, this engagement in research will not happen by chance but necessitates ‘the introduction of research in the design of curricula and sees students themselves taking a key role in creating the research/learning link’ (Brown & Donovan, 2000, p. 14).

**Developing Staff by ‘Growing Informed Networks’**

One of the most noteworthy themes to emerge from the present study relates to the high
interest staff have in ongoing dialogue on matters pertaining to teaching and learning. This need to build ‘communities of practice’, through what Hutchings (2000) describes as the ‘intangibles’, is related to:

the chance to be a part of a community of teachers, to talk seriously about teaching and learning, to have one’s ideas listened to and taken seriously, to get to slow down for a moment and reflect, and to be recognized by peers as contributing to an important larger enterprise. (p. 65; see also Brown, 2000)

At subject or departmental levels, a strategy for optimising involvement could include the nurturing of special interest groups, which might confront the teaching and learning dilemmas of the discipline (e.g. student retention, interdisciplinary courses). At the very least these groups should deal with issues that really do matter to staff and students.

Encouraging staff to obtain teaching qualifications and to pursue higher degrees in their fields seems to be another way by which to boost confidence and provide opportunities to engage in pedagogical content research. Judging by the increasing numbers of centres (e.g. in the UK a new Learning and Teaching Support Network of 24 subject centres has been established) that can help to inform teaching practice, workshops, courses in pedagogy, journals, and the like, it appears that the global academic community is starting to ‘take teaching more seriously’. Middleton (1997, p. 2), writing from a Canadian perspective, may be accurate in her assertion that ‘We are gradually beginning to challenge the culture that has made teaching such a private and secretive endeavour’.

Developing Organisations through Team Leadership

Closely related to these developments is the growing awareness that these changes will not, indeed should not, be dictated from the top, but require the collective wisdom and commitment of all stakeholders, working in collaborative ways (Lueddeke, 1999). It is possible that one of the reasons for such a low level of affirmation in this study regarding the strategy ‘participate in a module or unit on teaching-scholarship’ is that this strategy is inconsistent with staff self-views as autonomous and competent professionals. Bensimon and Neumann (1994) reinforce this point, citing Blackmore’s (1989, p. 94) concept of leadership ‘which counters the emphasis on individualism, hierarchial relationships, bureaucratic rationality and abstract moral principles’ ‘because all of these tend to exclude’ (Bensimon & Neumann, 1994, p. 19). Acknowledging ‘The Myth of the Hero-CEO’, Senge et al.’s (2000) studies over the past decade have consistently demonstrated that successful change initiatives require the interplay between three types of leaders: local line leaders (e.g. chairs), internal networkers or ‘seed carriers’ (e.g. opinion leaders) and executive leaders (e.g. deans) (pp. 16–18).

Conclusion

The study confirms that while there is considerable variation in how academics from different disciplines prefer to approach the scholarship of teaching, there is also some common ground (see also Gibbs, 2000). A chronic challenge facing higher education is how to engage ‘mid-career’ teaching staff, who may need to learn ‘to operate more from a stance of not knowing rather than from knowing’ (Senge, 2000, p. 284, original emphasis). As important as this philosophical shift is the proposition that if teaching in higher education is to be considered a ‘professional calling’, then academics may need to place their preparation to do research on an equal footing with that for teaching. This would mean engaging in pedagogical practices that go beyond ‘the acquisition of a few craft skills which may be picked up on the
job or from a few short courses’ (Piper, 1994, p. 7). They would then be expected ‘to know more than just their subject’ but also, as Laurillard (1993, p. 6) observes, ‘to know the ways it can become understood, the ways it can be misunderstood’ and ‘what counts as understanding’. The first step in this rather steep journey might be to convince new and established staff members that problems they encounter in their particular teaching contexts are ‘worth pursuing as an ongoing intellectual focus’ (Bass, 1999, p. 2). Needless to say, this type of change in the professional bureaucracy will not be easy and, as Mintzberg (1979) pointed out several years ago:

does not sweep in from new administrators taking office to announce major reforms, nor from government technostructures intent on bringing the professionals under control. Rather, changes seep in by the slow process of changing the professionals—changing who can enter the profession, what they learn in its professional schools (ideals as well as skills and knowledge), and thereafter how willing they are to upgrade their skills. (p. 379)

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