Controversy and Consensus on the Scholarship of Teaching

CAROLIN KREBER
University of Alberta, Canada

ABSTRACT Once downplayed as an amorphous and elusive term devoid of any clear meaning, the scholarship of teaching has gained much clearer contours over the past few years. Programmes that support and foster the scholarship of teaching now exist on many campuses and the implications for staff development have been recognised. Yet, to what extent do scholars in the field agree upon present conceptualisations of the term and the potential problems associated with it? Following the Delphi survey method, this study identified the extent to which a panel of 11 ‘experts’ in teaching and learning in higher education agree on the features and unresolved issues associated with the scholarship of teaching, and how these compare to perspectives discussed in the relevant higher education literature.

‘Scholarship of teaching’ has become part of our educational jargon, used most regularly by those interested in upping the ante with respect to teaching. It has become an amorphous term, equated more with commitment to teaching than with any concrete, substantive sense of definition or consensus as to how this scholarship can be recognized. (Menges & Weimer, 1996, p. xii)

The Current Context

The previous decade witnessed a strong interest among higher education researchers in a domain of academic work that prior to the 1990s had received only rather limited attention: the scholarship of teaching. Although this interest was initially stimulated by the North American Carnegie Foundation for the Advancement of Teaching, more precisely Ernest Boyer’s (1990) widely cited report, Scholarship Reconsidered, Boyer’s ideas since then have been further developed by scholars not only in North America but also most notably in Britain and Australia. Boyer’s concern focused largely on the university reward structure, which he, as many others, perceived as being heavily biased towards the discovery of new knowledge through discipline-based research, thereby undervaluing other equally important aspects of academic work such as integrating, applying and transmitting knowledge. To address this problem, he proposed to reconsider the traditional meaning of scholarship and to embrace a more comprehensive reconceptualisation, one which was seen as encompassing the four interrelated scholarships of discovery, integration, application, and teaching. Each of the four domains of scholarship should be given equal merit in decisions regarding faculty performance (e.g. Boyer, 1990; Smith, 1991; Rice, 1992; Knapper & Rogers, 1994).

Until rather recently, however, the notion of the scholarship of teaching was characterised by considerable ambiguity in terms of its meaning (Menges & Weimer, 1996; Kreber, 2001a) despite numerous discussions of the topic in North America (e.g. Shulman, 1987,
The 1990s witnessed very interesting initiatives aimed at improving the quality of university teaching and learning not only in North America but also in other countries. In Britain, for example, the Staff and Educational Development Association (SEDA), and more recently also the Institute for Learning and Teaching in Higher Education (ILT), each developed guidelines for the accreditation of programmes designed to train university teachers (Baume & Baume, 1996; ILT, 1999). The idea underlying these initiatives is that teaching, as well as staff development, needs to be professionalised in order to enhance the environment for learning. While the British notion of the ‘professionalisation’ of university teaching has gained much momentum in recent years, not only in Britain itself but also other European countries, the use of the term ‘scholarship of teaching’, until of late, had remained largely a North American phenomenon. In Australia, the Committee for University Teaching and Staff Development (CUTSD) recently funded a large-scale project aimed at developing the scholarship of teaching. The project had both empirical and development components and involved four universities (Martin & Ramsden, 2000). One outcome of this initiative is a model on conceptions of the scholarship of teaching which will be discussed below (Trigwell et al., 2000). In North America, new advances in the scholarship of teaching could be observed when the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL) was launched in 1998 as a major initiative of the Carnegie Foundation for the Advancement of Teaching. One of the programs offered by CASTL is the Pew National Fellowship Program for Carnegie Scholars (Hutchings, 1999; Cambridge, 2000). The purpose of the Pew Fellowship programme is described as creating:

a community of scholars, diverse in all the ways that matter in teaching and learning, whose work will advance the profession of teaching and deepen student learning. The central work of the Carnegie Scholars is to create and disseminate examples of the scholarship of teaching and learning that contribute to thought and practice in the field. (CASTL website)

While it is certainly one goal of this current initiative to make teaching more professional, Pew Scholars are trained in the practice of the scholarship of teaching as they engage in research on teaching and learning within their discipline. Following the new Carnegie standards for assessing scholarly performance, the work of a Pew Scholar is expected to (1) have clear goals, (2) require adequate preparation, (3) make use of appropriate methods, (4) produce significant results, (5) demonstrate effective presentation, and (6) involve reflective critique (Glassick et al., 1997, p. 25). While the suitability of these standards to distinguish between excellent and scholarly performance has not remained unquestioned, they do provide clearer guidelines for practising the scholarship of teaching. Other authors proposed a list of indicators of the scholarship of teaching that could be helpful for formative and summative evaluation purposes (Kreber & Cranton, 2000).

Next to the development of new programmes, there has also been a surge of new publications on the scholarship of teaching, which in important ways have contributed to our understanding of the concept. For example, the Australasian journal of Higher Education Research and Development (2000) devoted a special issue exclusively to the scholarship of teaching, featuring seven articles that build on but also advance the original ideas offered by Boyer. Of particular interest to an international audience is Healey's (2000) observation that ‘in the US ... the issue of roles and rewards has been important, while in the UK the...
discussion of the relationship between research and teaching and the impact of the Research Assessment Exercise has dominated the debate’ (p. 174).

Conceptions of the Scholarship of Teaching Found in the Literature

Kreber & Cranton (2000) suggested that the scholarship of teaching has been conceptualised in at least three different ways: as faculty conducting research on how to teach their discipline and publish the results (e.g. Richlin, 2001); as teaching excellence (Morehead & Shed, 1996); or as the prerogative of the educationist who suggests that faculty from other disciplines should apply the educationist’s scholarship, which is found in books and scholarly articles, to their own practice, thereby taking on a more scholarly approach to teaching (e.g. Menges & Weimer, 1996). Kreber & Cranton espouse a fourth perspective, one that embraces the importance of published or research-based knowledge as well as experience-based knowledge in teaching, but recognises also the need for faculty to conduct research on teaching and learning in their own discipline (Kreber, 1999; Kreber & Cranton, 2000; Weimer, 2001). Based on Mezirow’s (1991) transformation theory, they introduce a model that suggests that academics who practise the scholarship of teaching engage in content, process and premise reflection on research-based and experience-based knowledge in the areas of instruction, pedagogy and curriculum in ways that can be peer reviewed (Kreber & Cranton, 2000). Instructional knowledge is understood as all aspects of instructional design. Pedagogical knowledge is seen as knowledge of how students learn and of how to facilitate this learning. It is conceived of as being inclusive of Shulman’s (1987) pedagogical content knowledge and Rice’s (1991) notion of synoptic capacity. Curricular knowledge is knowledge of the goals, purposes and rationales for our classes, courses or programmes.

According to this model, an individual engaged in content reflection asks, ‘what should I do, know or find out here?’ A person engaged in process reflection asks, ‘how do I know if it works/if I am effective?’ Finally, a person engaged in premise reflection would ask, ‘why does it matter that I do this—is there an alternative?’ As a result, the model introduces a three by three matrix (three forms of reflection, each within three knowledge domains: see Kreber & Cranton, 2000), suggesting that there are nine different ways in which individuals can engage in aspects of the scholarship of teaching. Within each, individuals may draw on either their experience-based knowledge or their research-based knowledge or both. In this model, the scholarship of teaching is construed as having both a learning as well as a knowledge dimension. The authors demonstrate how the traditional criteria for assessing scholarly performance (Merton, 1973; Diamond & Adam, 1993), if slightly reconceptualised, can be used for the purpose of peer-reviewing this form of scholarship. While it makes intuitive sense to suggest that the three levels of reflection are hierarchical in nature, with engagement in premise reflection representing a higher-order form of learning than engagement in process and content reflection, this hypothesis still requires verification. A qualitative study with science professors using an interview method based on the model is presently in progress to identify these professors’ engagement in the various forms of reflection.

Of particular relevance to this present article is a recent study by Trigwell et al., (2000) that identified the conceptions of the scholarship of teaching held by 20 academic teaching staff at an Australian University. Following the research tradition of phenomenography (Marton, 1981), participants were interviewed about their beliefs about the scholarship of teaching. Rather than yielding one unified definition espoused by all participants, the study identified five different conceptions which were shown to be hierarchical in nature. The five conceptions differ in terms of four key dimensions, which can be summarised as follows: the sources of information teachers draw upon, the focus of their reflection, the nature and extent
of their communication of insights, and their conceptions of teaching and learning (Prosser et al., 1994; Kember, 1997). A higher-order form of engaging in the scholarship of teaching, according to this model, would be characterised by consulting discipline-specific literature on teaching and learning, focusing reflection on particular problems in one’s practice, communicating the results through peer-reviewed media, and seeing teaching in a student-focused and learning-oriented way. The central role of critical reflection in the scholarship of teaching, scrutiny by peers, and inquiry as an underlying motivation, has been highlighted also by Andresen (2000).

Methodology

This article reports on an exploratory study that was conducted between September 1998 and May 1999 with a small but very selective group of individuals supposedly very knowledgeable in the scholarship of teaching, with the goal of identifying important features as well as unresolved issues surrounding the scholarship of teaching. The reader should be reminded that at the time of the study, the concept was characterised by even greater ambiguity than is the case today, with different articles making different and at times contradictory statements. Furthermore, the literature that explicitly discussed the scholarship of teaching was predominantly North American.

The study explored three distinct questions: First, to what extent do ‘experts’ agree on the nature of the scholarship of teaching? Second, do they conceptualise the scholarship of teaching in ways that are compatible with any of the aforementioned perspectives? Third, to what extent do ‘experts’ agree on what constitute unresolved issues that present obstacles to the institutionalisation of the concept in universities?

Rather than designing a questionnaire based on the perspectives found in the literature up to that point, and thereby limiting the possible range of outcomes of the study, a constructivist approach was followed in the sense that the investigation was guided by participants’ own perceptions of the issue. The reasoning behind this approach was that by asking participants for their personal perceptions first, rather than imposing a survey with a fixed item format from the beginning, the results of the study may shed light on aspects of the scholarship of teaching not yet recognised in the literature on the subject. A constructivist framework had previously proven successful in revealing relationships between various aspects of scholarly work (Kreber, 2000). The procedure chosen in this study was an open survey, where research participants had considerable influence over the development of the survey instrument. This procedure is known as the Delphi survey method.

According to Fish & Busby (1996) and Linstone & Turoff (1975), the Delphi method is a procedure designed to have a panel of knowledgeable persons reach consensus on a particular topic. Pfeiffer (1969) writes that ‘the method provides for an impersonal anonymous setting in which opinions can be voiced without bringing the ‘experts’ together in any kind of face-to face confrontation’ (p. 155). The Delphi method prevents or minimises the influence of dominant individuals, irrelevant and biasing communication, and group pressure for conformity (Dalkey, 1972). Perhaps most importantly, Clayton (1997) argues that the Delphi method is an appropriate way to make important decisions about educational policy. A Delphi study is usually conducted in three phases. The instrument used is a questionnaire, which is adapted with each phase. The study commenced in the autumn of 1998 and the Delphi panel involved 11 experts. First, they contributed items for use in a questionnaire. Once the questionnaire was developed, listing all the items mentioned by the 11 panellists, they each rated the items on a Likert scale. Their ratings were then analysed for the extent to which they endorsed the items that were contributed and the extent to which they reached
group consensus on these. These results were then reported back to the panellists with the invitation to change their initial ratings in light of the new information presented, if they wished.

**Identifying Experts’ Perceptions through the Delphi Process**

Clayton (1997) reminds us that ‘the process of selecting experts is critical to the Delphi and serves to authorize the Delphi’s superiority and validity over less painstaking and rigorous survey procedures’ (p. 400). He urges the researcher to carefully consider the procedures for expert selection. All 11 participants in the study were academics who enjoy an excellent reputation for their scholarly work on post-secondary teaching and learning and faculty evaluation, and most of them have published explicitly on the scholarship of teaching by using this term in their professional writing. The panel was predominantly North American, with one participant from Canada, one from Australia, and eight from the USA. One panellist, even though at the time of the study holding an appointment at a Teaching and Learning Centre in Hong Kong, was also Canadian. A detailed description of the panel can be found elsewhere (Kreber, 2001a). Clearly, were a similar study to be conducted today, the panel would need to be of greater international scope, including, considering recent publications on the topic, most notably scholars from the UK and Australia. Regarding panel size, Clayton (1997) suggests that there are no definite criteria; however, a panel of 15–30 individuals is recommended if all the experts come from the same discipline, and a smaller panel of 5–10 individuals where each of the panellists has expertise on a particular topic but comes from a different discipline. A panel size of 11 seems quite appropriate considering that participants did share higher education as a ‘discipline’ from which to construe or frame the ‘scholarship of teaching’; this field itself, however, is interdisciplinary and therefore open for different areas of expertise.

In the first phase of the Delphi process, each participant was asked to respond in writing to two questions:

**Question One:** What do you consider to be the key features or components of the scholarship of teaching?

**Question Two:** Which, if any, are the issues surrounding the scholarship of teaching that you consider to be unresolved to date?

Responses to Phase One were received by January 1999. A content analysis of all the comments received yielded 48 distinct statements for Question One and 32 distinct statements for Question Two. In addition to these 32 neutral statements regarding unresolved issues (e.g. ‘The assessment, recognition and reward of the scholarship of teaching remains a primary challenge’), panellists made 19 statements that offered an opinion on issues (e.g. ‘Graduate education must change to feature multiple kinds of scholarship’). This reaction was considered interesting and six items that were among the 32 neutral ones raised in response to Question Two were then deliberately reworded so as to express an opinion as well. Ultimately, the questionnaire used for Delphi phases two and three consisted of three parts, with part one listing 48 distinct features of the scholarship of teaching, part two listing 32 neutral statements regarding unresolved issues, and part three listing 25 statements on unresolved issues that offered an opinion.

Panellists then indicated the extent to which they endorsed each of the statements by assigning a rating between 1 (meaning ‘I strongly disagree with the statement’) and 7 (meaning ‘I strongly agree with the statement’). Questionnaires were returned by March 1999. The group’s data were analysed in terms of the median and interquartile range for each
item. The median is the point above and below which 50% of the responses fell. The interquartile range contains the middle 50% of the responses; its size gives an indication of how widely the responses differed from one another. The greater the interquartile range, the more widespread the responses and the less consensus there is among panellists. When the goal is to reach consensus among a group of experts, the median and interquartile range are more appropriate measures than the mean and standard deviation as they exclude extreme scores on either end. The third phase, asking panellists to reconsider their initial personal rating for each item in light of its median and interquartile range, started in April 1999 and 10 out of 11 responses were received the following month.

Note that the purpose of the study was to reach agreement or identify conceptions of the scholarship of teaching shared by the experts. By deliberately ignoring extreme ratings and focusing on consensus, the study did not address whether the extreme answer might be the ‘right’ answer. Indeed, according to the assumptions guiding the study, the right answer would be determined by whether experts reached consensus on it.

Once the data collection was complete, questionnaire items were grouped into two main categories: (1) items reaching high expert consensus; and (2) items reaching lower expert consensus. After categorising the data in several different ways, it was decided to choose an interquartile range of equal to or smaller than 1.5 as a measure of high group consensus or agreement, as this measure differentiated a meaningful number of items. Only items with a median equal to or higher than 4.5 or equal to or lower than 2.5 were considered. Both the high and lower consensus categories, therefore, include only items that were endorsed by experts on some level and those that they disagreed with. In order to identify relationships among these items in each category, it was decided to use a procedure that would also take into account the ratings that were assigned to each item, rather than conducting a purely qualitative analysis of the wording of the items. One way in which researchers working with larger samples approach such problems is to employ principal component factor analysis. In the present study, however, the very small sample size renders such an approach somewhat difficult to defend—at least as a robust analysis of the given data set. Noting this limitation, it was decided to employ factor analysis as a ‘heuristic tool’ and to emphasise that the procedure is conceptual as well as exploratory in nature, and the results, by implication, are tentative. Confidence in the emerging factor structure has to remain low until further research corroborates what is reported here. At the same time, the approach was considered a useful heuristic for stimulating reflection and furthering discussion on the meaning and unresolved issues surrounding the scholarship of teaching. Consolidating the data in terms of ‘factors’ to be compared to the literature was considered more meaningful than reporting on selective questionnaire items individually.

As the procedure is recognised here as strictly conceptual, there is by implication little gained by reporting on the factor structure in the same detail as would be expected in more robust factor analytical studies with large samples. While tables representing descriptive statistics for each item, factor loadings, and variance contribution can be obtained from the author, they will not be included here. For the questionnaire used in the study, see Kreber (2001a). When appropriate, individual items defining a given factor will be referred to in the text.

### Important Features/Components of the Scholarship of Teaching

Six factors emerged for the high expert consensus category (based on a total of 23 items) and five for the lower expert consensus category (based on a total of 20 items). The large number
of items in the lower consensus category suggests that the notion of the scholarship of teaching is indeed in need of a more precise definition.

The following five items loaded on the first factor.

- The scholarship of teaching has characteristics that make it different from other forms of scholarship, but it also has characteristics that encompass the dimensions of the scholarship of discovery, integration and application (item 32).
- Faculty that practise the scholarship of teaching are curious about the ways in which students learn and the effects of certain practices on that learning (item 21)
- People that practise the scholarship of teaching generate new ideas about teaching (item 40).
- Individuals practising the scholarship of teaching investigate the relationship between teaching and learning (item 39).
- Engaging in classroom research is important but is not sufficient for the scholarship of teaching (item 41)

These items suggest that the scholarship of teaching involves curiosity, exploration, innovation, sharing, knowledge of how to conduct research, as well as integrating and applying knowledge. This first factor was labelled ‘exploring relationships between teaching and learning, research, and integrating and applying knowledge’.

Six items defined the second factor.

- Scholarly teachers know that people learn in diverse ways; hence they know that instruction should be diverse as well (item 43).
- Scholarly teachers are always learning both about knowledge in their field and how to make connections with students (item 36).
- People practising the scholarship of teaching make a deliberate effort to share their experience with others (they act as mentors, communicators, faculty developers, etc.) (item 20—loaded negatively).
- The scholarship of teaching is an activity that, in the context of promoting student learning, meets each of the following criteria.
  
  (a) It requires high levels of discipline-related expertise.
  (b) It breaks new ground and is innovative.
  (c) It can be replicated and elaborated.
  (d) It can be documented.
  (e) It can be peer reviewed.
  (f) It has significance or impact (item 18).

- A key feature in the scholarship of teaching is having an understanding of how people learn, knowing what practices are most effective, and having knowledge about what we have learned about teaching (item 1).
- People practising the scholarship of teaching succeed in winning grants for their work (item 8—note that panelists disagreed with this item).

The message conveyed by these items is that the scholarship of teaching is informed by the same standards as disciplinary scholarship, and that effective teaching is linked to learning about the discipline, learning about how students learn, and learning about the wisdom of practice. The fact that item 20 loaded negatively on this factor is somewhat difficult to interpret. Obviously, the sharing component addressed in that item is not the same as in peer review (see item 18, which also loaded on this factor). Perhaps the reason is that all the other items require an effort from individual faculty as knowledge is personally constructed and, at
that point, have little to do with the sharing of insight. This second factor was labelled ‘effective teaching through the wisdom of practice and standards of disciplinary scholarship’.

Four items loaded on the third factor.

- A person practising the scholarship of teaching is aware of, experiences, and can express an underpinning conceptual framework for their teaching, a framework that is strongly related to students learning outcomes (item 47).
- A key feature in the scholarship of teaching is the hard intellectual work that goes into preparing effective learning experiences for students (item 38).
- People practising the scholarship of teaching focus on change, they develop their practice through a cycle of action, reflection and improvement (item 13).
- Learning to pose questions about teaching and learning is a starting point in the scholarship of teaching; gathering evidence, interpreting it, sharing results, and changing practice continue the process (item 44).

These items indicate that the scholarship of teaching is based on knowledge about teaching and learning through reflection, preparation and inquiry and is concerned with the enhancement of student learning. This third factor was labelled ‘knowledge about teaching and learning through reflection on practice’.

The fourth factor was also defined by four items.

- People practise the scholarship of teaching need to have assessment, evaluation, and research skills. They need to be able to conduct classroom research and document the process of teaching and learning and student progress (item 15).
- For people that practise the scholarship of teaching, teaching is driven by an ‘inquiry ethic’ (item 23).
- People practising the scholarship of teaching publish their findings in peer-reviewed journals and at conferences (item 17).
- The conduct of research on teaching and learning (less formal and formal) contributes to the advancement of pedagogical content knowledge, and presents forms of the scholarship of discovery that overlaps with, and is part of, the scholarship of teaching (item 6).

Here the scholarship of teaching is seen as requiring specific research skills, attitudes and products. The attitude should be one of inquiry, the skills those needed to analyse and interpret observations, and the products some form of publication. Hence, this fourth factor was labelled ‘specific research skills, attitudes, and products’.

The fifth factor was defined by only two items.

- The key features of the scholarship of teaching are content knowledge in the deepest sense and knowledge of pedagogy in the broadest sense, resulting in pedagogical content knowledge (item 4).
- The scholarship of teaching involves constant reflection of the process and outcomes of teaching and learning and acknowledges the contextual nature of teaching (item 9).

A concern with the development of context-specific pedagogical content knowledge attained through constant reflection is expressed. As a result, the fifth factor was labelled ‘development of pedagogical content knowledge through reflection’.

Finally, the sixth factor also was defined by only two items.

- Those that practise the scholarship of teaching carefully design ways to examine, interpret and share learning about teaching. Thereby they contribute to the scholarly community of their discipline (item 2).
- The scholarship of teaching entails a public account of some or all of the following aspects of
teaching: vision, design, interaction, outcomes and analysis, in a manner that can be peer reviewed and used by members of one’s community (item 45).

This last factor was labelled ‘sharing and peer review of information and insight’.

The factors in the lower consensus category will be summarised more briefly. Rather than discussing all the items (a total of 23) loading on the five factors, examples will be provided.

In terms of the first factor, experts showed lower consensus regarding the extent to which they felt that:

The scholarship of teaching involves constant reflection on teaching experience, reflection on research on teaching, and knowledge of the discipline; is concerned with student learning; can be practised in the area of faculty development work and graduate education.

Examples of the 10 items defining this factor include the following.

- Graduate training and new faculty preparation that promote understanding of the complex interplay between research in the content of the discipline, traditional educational research on teaching and learning, and the processes of designing effective learning environments, in combination, constitute an act of scholarship (item 7).
- The scholarship of teaching involves knowing where and why students have difficulty (item 3).
- The scholarship of teaching requires that teachers constantly reinterpret, integrate and apply knowledge in their disciplines—this embellishes their teaching (item 29).
- Enacting the wisdom of practice, that is, reflection on the experience of teaching, and the application of general principles of effective teaching and learning that enhance opportunities for learners to make connections between prior knowledge and new content, constitute acts of scholarship (item 34).

The second factor suggested that:

the scholarship of teaching differs from scholarly teaching and excellence in teaching.

Examples of responses include:

- excellent teachers need not be scholars of teaching (item 16);
- scholarly teaching is intended to impact the activity of teaching. The scholarship of teaching is intended to result in a formal peer reviewed communication in appropriate media or venues (item 11).

The third factor suggested that:

the scholarship of teaching requires the integration of discipline knowledge with teaching and of the scholarship of teaching with other areas of scholarly work.

Examples of responses include:

- people practising the scholarship of teaching see the four areas (the scholarship of teaching, discovery, integration and application) as overlapping entities (item 31);
- the scholarship of teaching needs to be integrated into and built upon other forms of scholarly work (item 33).

The fourth factor suggested that:

the scholarship of teaching involves the teaching of thinking skills.

Responses include:
• scholarly teachers teach for understanding and thinking skills; content knowledge is not enough (items 35).
• scholarly teachers use assignments and assessments that emphasise higher-order thinking/cognitive skills, and relate concepts to real life (item 46).

Finally, the fifth factor suggested that:

the scholarship of teaching involves the conduct of research on teaching and learning in the disciplines.

It was defined by only one item.

• Substantial portions of what constitutes the scholarship of teaching is discipline-specific. Hence there is a strong need for research on teaching and learning in the disciplines (item 19).

In summary, it can observed that the features experts associate with the scholarship of teaching can be grouped into 11 general themes or ‘factors’—six within the high consensus category and five within the lower consensus category. Rather than discussing the results in relation to each of the perspectives presented earlier, the focus here will be on two recent models on the scholarship of teaching. The first model was empirically derived (Trigwell et al., 2000), the second was deduced from transformation theory (Kreber & Cranton, 2000).

Trigwell et al. (2000) argued that conceptions of the scholarship of teaching vary along four dimensions: the kind of information individuals draw on, the focus of their reflection, the extent of their communicating their insights, and lastly, their conceptions of teaching and learning. It speaks to the validity of these four dimensions that though the labelling is not ideal, they can at least be associated with the factors identified in this study.

• exploring relationships between teaching and learning, research, and integrating and applying knowledge (Information);
• effective teaching through the wisdom of practice and standards of disciplinary scholarship (Reflection, Communication);
• knowledge about teaching and learning through reflection on practice (Reflection);
• specific research skills, attitudes, and products (Reflection, Communication);
• development of pedagogical content knowledge through reflection (Conceptions, Reflection);
• sharing and peer review of information and insight (Communication);
• the scholarship of teaching involves constant reflection on teaching experience, reflection on research on teaching, and knowledge of the discipline; is concerned with student learning; can be practised in the area of faculty development work and graduate education (Information, Reflection, Conceptions);
• the scholarship of teaching differs from scholarly teaching and excellence in teaching (Information, Communication);
• the scholarship of teaching requires the integration of discipline knowledge with teaching and of the scholarship of teaching with other areas of scholarly work (Information);
• the scholarship of teaching involves the teaching of thinking skills (Conceptions);
• the scholarship of teaching involves the conduct of research on teaching and learning in the disciplines (Information, Reflection, Communication).

As for the model proposed by Kreber & Cranton (2000), experts do highlight the notions of reflection, experience-based and research-based knowledge on teaching and learning, as well as sharing and peer review. Both models highlight the advancement of knowledge about teaching and learning in the discipline and the importance of pedagogical content knowledge, and this feature is clearly evident in the data. In general, one can observe that experts agree
that the scholarship of teaching is associated with, yet is not the same as, teaching excellence, is not the prerogative of the educationist, and is not limited to publishing research on teaching in peer-reviewed journals.

Identifying Unresolved Issues with the Help of Experts

Of the 32 neutral items making a statement regarding what constitute unresolved issues in relation to the scholarship of teaching, 12 appeared in the high consensus category and nine in the lower consensus category. The remaining 11 reached a median rating between 2.5 and 4.5 and were excluded from the analyses.

Four factors emerged for the high consensus category. The four items defining the first factor were as follows.

- The lack of broadly acceptable definitions for the scholarship of teaching, scholarly teaching, excellence in teaching, expert teacher, and research on teaching and learning is an unresolved issue (item 1).
- The assessment, recognition and reward of the scholarship of teaching remains a primary challenge (item 2).
- Who determines the standards and criteria by which to review and critique the scholarship of teaching (learning theorists, cognitive psychologists, discipline specialists) has not been resolved (item 3).
- How the scholarship of teaching is related to the literature on 'teacher research' and 'action research' is not clear (item 5).

As these items suggest that the definition, criteria for assessment, and knowledge base for the scholarship of teaching are unclear, this first factor was labelled 'the definition, criteria for assessment, and knowledge base for scholarship of teaching are important unresolved issues in the scholarship of teaching'.

The second factor was characterized by three items.

- How teachers can acquire the knowledge and skills to become more scholarly in teaching (here: knowing how to involve students in higher-order learning) has not been adequately addressed (item 31).
- Whether a scholar of teaching studies teaching as a discipline in itself or whether teaching is studied through another discipline has not been sufficiently made clear (item 13).
- The links between expertise in teaching, and expertise in the scholarship of teaching, have not been sufficiently explored (item 30).

This second factor was labelled 'the acquisition of the scholarship of teaching, its relationship to the discipline, and the role of expertise in teaching are unresolved issues'.

Three items defined the third factor.

- The lack of an agreed upon language for communicating about the scholarship of teaching remains a challenge (item 7 [loaded negatively]).
- Whether or not, and to what extent, the scholarship of teaching is something that all academics can successfully practise, has not been adequately addressed (item 12).
- The relationship between formal educational research and contextual classroom research remains unclear (item 6).

The underlying construct of this factor is not entirely clear. Perhaps what is suggested here is that if we had an agreed upon language to communicate about the scholarship of teaching, and if the contribution of educational research to the scholarship of teaching was made
clearer, it would be easier to decide whether everybody can or should successfully practise the scholarship of teaching. This third factor was labelled ‘familiarity with the language of education and with educational research influence teaching staff’s ability to pursue the scholarship of teaching’.

The fourth factor was defined by two items.

- **How the new technologies of instruction may influence the development of a scholarship of teaching remains an unresolved issue (item 20).**
- **How to cultivate local systems of support for the scholarship of teaching is an unresolved issue (item 19 loading negatively).**

As there was no apparent link between these items other than that the concern in both cases is a rather practical one, this fourth factor was labelled ‘The role of new technologies and the cultivation of local support for the scholarship of teaching are unresolved issues’.

Three factors were identified for the **lower consensus** category. A total of three items loaded on the first factor.

- **Whether all studies in the scholarship of teaching should be required to include authentic indicators of student learning outcomes needs to be addressed (item 8).**
- **How to develop communities of discourse around the scholarship of teaching (item 23).**
- **The lack of formal training for faculty on teaching and learning and faculty’s resistance to such learning remains an unresolved issue (item 21).**

This first factor suggests that ‘The lack of formal training for faculty on teaching and learning, clarity on whether the scholarship of teaching should be assessed on the basis of student learning, and ways of talking about and sharing knowledge about the scholarship of teaching are unresolved issues’.

The second factor was defined by three items.

- **Whether publication of experience/findings in peer-reviewed media is a necessary characteristic of the scholarship of teaching is not clear (item 4).**
- **Whether being an expert teacher is the same as being a scholar of teaching (item 27).**
- **Finding adequate approaches for identifying, codifying, and reporting, and communicating ‘the wisdom of practice’ remains a challenge (item 32, loaded negatively).**

This second factor suggests that ‘how to share and communicate in the scholarship of teaching and how teaching expertise relates to the scholarship of teaching are unresolved issues’.

Finally, three items also loaded on the third factor.

- **The relationship between scholarship of discovery on teaching and learning in higher education and the scholarship of teaching has not been adequately addressed (e.g. the question whether formal educational research on teaching and learning is a component of the scholarship of teaching) (item 11).**
- **The isolation of the scholarship of teaching from the primary work of the disciplines and of departments is unresolved (item 15)**
- **It remains unclear how to build the scholarship of teaching into graduate education (item 28)**

This factor suggests that ‘how the scholarship of teaching relates to graduate education, the disciplines, and formal research on teaching are unresolved issues’.

**Unresolved Issues that Panellists Took a Stance On**

As the results of the previous two sections were discussed in greater detail, a brief summary of the emergent factors in relation to section three may suffice. Four factors were identified for the **high consensus** category. Experts shared the following opinions.
• Graduate education and faculty development need to promote the scholarship of teaching; the recognition and rewards for the scholarship of teaching and excellence in teaching need to be translated into policy.
• The scholarship of teaching involves serious inquiry into teaching and learning; new faculty need to be encouraged to practise the scholarship of teaching; faculty need to learn the educational language to address teaching and learning in their disciplines.
• Faculty need to be educated in how to think of teaching as scholarship; there has to be more systemic support for this kind of work.
• Ways of documenting the scholarship of teaching, that can be subjected to peer review, need to be developed.

Four factors were identified for the lower consensus category. Experts agreed less with each other on the following opinions.

• One can be professional about teaching without being a scholar of teaching; too little thought is given to collection of data illustrating the influence of instruction on student learning.
• Expert, excellent, scholarly teaching, or the scholarship of teaching need to be differentiated and criteria for such discriminations are needed; too much emphasis is placed on the performance of the teacher rather than whether students benefit from such performance.
• Those that practise the scholarship of teaching engage in formal educational research; not all teaching has to be scholarly.
• The process of how one becomes a scholar of teaching requires further investigation.

Once again, the reader is reminded that lower consensus here means that there was greater dispersion in the data. Despite lower consensus, there was still a tendency among experts to endorse the opinions reported here.

Discussion and Recommendations

The predominantly North American panel raised a variety of issues they considered unresolved in their given context. To what extent are their perceptions relevant and of interest to an international audience?

Perhaps not surprisingly, there was high consensus among this North American panel on those statements that centred on the notion of recognition and assessment of the scholarship of teaching. As indicated earlier, Healy (2000) suggested that the recognition of and rewards for the scholarship of teaching are considered important issues in North America, where as in Britain, the discussion of the relationship between research and teaching is seen as more important. Alternatively, one could argue that by reconceptualising the relationship between research and teaching, British scholars are attempting to influence present discussions which, just as in North America, are dominated by the primacy accorded to research. It is interesting, however, that only one statement directly addressed the issue of the relationship between teaching and research and this was endorsed on a somewhat lower level, and there was far less consensus among panellists. This was item 11, which reads:

The relationship between the scholarship of discovery on teaching and learning in higher education and the scholarship of teaching has not been adequately assessed.

Perhaps related is the observation that both in Britain and in Australia, the scholarship of teaching is conceived of as more of a campus activity, in other words, as an endeavour aimed at promoting an institutional environment that is supportive of teaching and learning. In the
USA, the scholarship of teaching has been conceived of as both a campus activity and as an activity or career path individual faculty may wish to pursue (Cambridge, 2001). The latter could thrive only if appropriate assessment procedures and rewards were in place.

Directly linked to the question of assessment and evaluation is another finding of this Delphi study. Panellists agreed with the following two items on the questionnaire.

- **Whether or not, and to what extent, the scholarship of teaching is something that all academics can successfully practise, has not been adequately addressed.**
- **Excellence in teaching needs to be valued even if it does not contribute to the scholarship of teaching.**

The point implied by these statements is that not all academic staff should be required to make the scholarship of teaching the focus of their career, and that the rewards for teaching excellence and the scholarship of teaching need to be different. Such a view is echoed by Hutchings (cited in Cambridge, 2000), who suggests, ‘The scholarship of teaching is not for everyone for all time ... Some scholars will choose to focus on teaching and learning; others will not’ (p. 57).

In this context, it is important to note that experts felt that the meaning of terms such as expert teacher, excellent teacher and scholar of teaching needed to be articulated more precisely to show the ways in which these concepts differ and overlap. This is seen as important as according to this expert panel, not everyone needs to become a scholar of teaching. Experts also suggested that faculty and graduate students need to be educated in the scholarship of teaching, that they need to develop the language to address teaching and learning in their respective disciplines, and that this requires institutional support. As was shown at the beginning of this article, several countries, among them Britain, Australia and the USA, have developed initiatives addressing this concern.

Altogether, panellists showed high group consensus on 26 unresolved issues they felt were important. A lower level of group consensus was found on 18 additional issues. The results of the Delphi study might offer further direction in deciding which issues need attention in the endeavour of implementing the scholarship of teaching in universities. Participants in this Delphi study made suggestions for how to respond to some of the issues they identified. These issues include the recognition, assessment and evaluation of the scholarship of teaching (Theall & Centra, 2001), the difference between scholarly teaching and the scholarship of teaching (Richlin, 2001), the role of expertise in the scholarship of teaching (Smith, 2001), how to build on and document the wisdom of practice (Weimer, 2001), the role of graduate education and faculty development in educating academics in the scholarship of teaching (Kreber, 2001 b), how to promote the scholarship of teaching within the disciplines (Weston & McAlpine, 2001), and the relationship between research and the scholarship of teaching (Paulsen, 2001). Other scholars have provided excellent discussions of how the scholarship of teaching relates to the other domains of scholarship practised within the disciplines (Healey, 2000; Jenkins, 2000).

The probability of effectively changing the ways we have traditionally understood the ancient term scholarship is perhaps greatest if all these issues were discussed among academic staff at our various campuses. For policy changes in present staff evaluation to occur, for example, those who serve on tenure and promotion committees have to be supportive of the scholarship of teaching. Such support can not be expected unless these individuals become educated in the multiple ways scholarship can be practised. Likewise, proposals for changes in staff development programmes in the direction of promoting the scholarship of teaching will not thrive unless academic staff members themselves perceive a real value in participating in such programmes. Trigwell et al.’s (2000) conceptions of the scholarship of teaching would
seem relevant here. Staff’s conceptions of teaching and learning may need to change before they can be expected to see any relevance in learning about certain aspects of the scholarship of teaching. For example, an academic staff member working from a transmission perspective will see little relevance in staff development initiatives aimed at gaining a better understanding of how students learn.

As for changes in the structure of graduate programmes more, than the support of one’s own institution might be necessary to effect change. Little would be gained, for example, by permitting doctoral students to focus their dissertation on how knowledge in the discipline is constructed, if such dissertations are considered second class at other institutions.

As a result of this exploratory Delphi study, we know what a small pool of experts in the field perceive to be important features and unresolved issues surrounding the institutionalisation of the scholarship of teaching in universities. The issues, as well as their solutions, however, will probably vary with the specific context within which a university operates. Not only may a more international panel have identified an entirely different set of issues, but those issues that were considered to be most pressing may also vary from one campus to another, and perhaps most importantly, one from one department to another. Note that over the past several years a strong argument has been made in favour of departmental or discipline-based staff development, rather than institution-wide programmes, as most academics identify much more with the discipline than with their institution (Gibbs, 1996; Jenkins, 1996).

What does institutionalising the scholarship of teaching mean in the end? On the one hand, it would mean to have the concept thrive within one’s own institution or campus. On the other hand, however, it would involve effecting change across academe in terms of the kinds of contributions to scholarship that are being valued. It is for this reason that discussions of the issues associated with the scholarship of teaching need perhaps to begin on each campus but should not end there. Each discipline has its own scholarly associations, with annual meetings, where traditionally the advancement of the knowledge in the discipline has been the focus. However, if faculty in disciplines other than education begin to build a career around exploring the teaching and learning dimension of their discipline, perhaps on a contractual and cyclical basis as proposed by Boyer (1990), and are encouraged to present their work at associations affiliated with their discipline, we witness a true shift in what counts as scholarship in academe. To date, we have conceived of relevant knowledge in the discipline almost exclusively as that which relates to the content of the field, paying little attention to how knowledge in this field is constructed and transmitted. Healey (2000) writes in this context, ‘debates about progress in the disciplines have focussed on the content and methodology of the subject and have largely ignored the role of teaching’ (p. 173). Arguing for the development of discipline networks for promoting the multiple ways of scholarship within a discipline, he suggests that new insights can be gained also by involving educational development specialists and colleagues from related disciplines in such networks. This same idea seems to be underlying the Pew Scholar Fellowship Program in the USA, described earlier.

We have come a long way since Boyer first forcefully provoked us to reconsider our assumptions as to what constitutes scholarly work. Once downplayed as an amorphous and elusive term devoid of any clear meaning, the scholarship of teaching has gained much clearer contours over the past few years. Programmes that support and foster the scholarship of teaching now exist on many campuses and the implications for staff development have been recognised (e.g. Trigwell et al., 2000). Still, for the scholarship of teaching to be granted equal recognition to research in the future, discussions now need to continue, and perhaps focus, at the level of disciplinary associations.
Correspondence: Carolin Kreber, Adult and Higher Education, Educational Policy Studies, 7–151 Education North, University of Alberta, Edmonton, AB T6G 295, Canada; e-mail: carolin.kreber@ualberta.ca

REFERENCES


CARNegie ACADEMY FOR THE SCHOLARSHIP OF TEACHING AND LEARNING (CASTI) http://www.carnegie-foundation.org/CASTL/highered/Pewscholars.htm


