In 1990 the Carnegie Foundation for the Advancement of Teaching published a report entitled Scholarship Reconsidered - Priorities of the Professoriate. Written by Ernest Boyer, then President of the Foundation, the report was a response to growing concern about the low priority assigned to undergraduate teaching in American higher education. Boyer's redefinition of the notion of scholarship has been enormously influential, prompting reconsideration of the nature of the academic role by American policy makers at many levels. Below, we reproduce extracts from the second chapter of Boyer's report, in which he sets out four aspects of scholarship including, significantly, a scholarship of teaching.

The full report is available for loan from the Institute for the Advancement of University Learning.

Today, when we speak of being "scholarly," it usually means having academic rank in a college or university and being engaged in research and publication. But we should remind ourselves just how recently the word "research" actually entered the vocabulary of higher education. The term was first used in England in the 1870s by reformers who wished to make Cambridge and Oxford "not only a place of teaching, but a place of learning," and it was later introduced to American higher education in 1906. But scholarship in earlier times referred to a variety of creative work carried on in a variety of places, and its integrity was measured by the ability to think, communicate, and learn.

We believe the time has come to move beyond the tired old "teaching versus research" debate and give the familiar and honorable term "scholarship" a broader, more capacious meaning, one that brings legitimacy to the full scope of academic work. Surely, scholarship means engaging in original research. But the work of the professoriate might be thought of as having four separate, yet overlapping, functions. These are: the scholarship of discovery; the scholarship of integration; the scholarship of application; and the scholarship of teaching.

THE SCHOLARSHIP OF DISCOVERY

The first and most familiar element in our model, the scholarship of discovery, comes closest to what is meant when academics speak of "research." No tenets in the academy are held in higher regard than the commitment to knowledge for its own sake, to freedom of inquiry and to following, in a disciplined fashion, an investigation wherever it may lead... The scholarship of discovery, at its best, contributes not only to the stock of human knowledge but also to the intellectual climate of a college or university... Scholarly investigation, in all the disciplines, is at the very heart of academic life, and the pursuit of knowledge must be assiduously cultivated and defended. The
intellectual excitement fueled by this quest enlivens faculty and invigorates higher learning institutions, and in our complicated, vulnerable world, the discovery of new knowledge is absolutely crucial.

THE SCHOLARSHIP OF INTEGRATION
In proposing the scholarship of integration, we underscore the need for scholars who give meaning to isolated facts, putting them in perspective. By integration, we mean making connections across the disciplines, placing the specialties in larger context, illuminating data in a revealing way, often educating non-specialists, too. In calling for a scholarship of integration, we do not suggest returning to the “gentleman scholar” of an earlier time, nor do we have in mind the dilettante. Rather, what we mean is serious, disciplined work that seeks to interpret, draw together, and bring new insight to bear on original research...

The scholarship of integration is, of course, closely related to discovery. It involves, first, doing research at the boundaries where fields converge, and it reveals itself in what philosopher-physicist Michael Polanyi calls “overlapping [academic] neighborhoods.” Such work is, in fact, increasingly important as traditional disciplinary categories prove confining, forcing new topologies of knowledge... The scholarship of integration also means interpretation, fitting one’s own research—or the research of others—into larger intellectual patterns. Such efforts are increasingly essential since specialization, without broader perspective, risks pedantry. The distinction we are drawing here between “discovery” and “integration” can be best noted when he says knowing and learning are inevitable accompaniment of progress; yet it is full of dangers, and it is cruelly wasteful, since so much that is beautiful and enlightening is cut off from most of the world. Thus it is proper to the role of the scientist that he not merely find the truth and communicate it to his fellows, but that he teach, that he try to bring the most honest and most intelligible account of new knowledge to all who will try to learn.”

1 Michael Polanyi The Tacit Dimension (Garden City N.Y.: Doubleday 1962)
2 Parker J. Palmer To Know As We Are Known (New York: Harper and Row, 1989)
3 The New York Times 21st December 1954

In the end, inspired teaching keeps the flame of scholarship alive...Without the teaching function, the continuity of knowledge will be broken and the store of human knowledge dangerously diminished.
UNDERSTANDING OXFORD LEARNING

Understanding Oxford learning

In 2000 the University established the Institute for the Advancement of University Learning, with a research brief to conduct an investigation of aspects of learning and teaching at the University. Following consultation during Michaelmas term with individual academics, interested committees, and a sample of colleges the Institute is now embarking upon the first phase of its investigations. The three-year project aims to explore the factors that undergraduates perceive to be of benefit or a hindrance in their pursuit of learning. The research is intended to support individuals, departments, colleges, divisions and other bodies of the University in building upon Oxford’s tradition of excellence in undergraduate education.

The study is being conducted by Dr Keith Trigwell, the Institute’s Principal Research Fellow, and Dr Paul Ashwin, the Research Officer, in consultation with college and university staff. Broadly, the research is an investigation into variation in student learning in Oxford. We will look at how the perceptions of high achieving students (those who obtain firsts or those considered by tutors to be high achieving) differ from those of other students, and how this information can be used to improve the learning of all students at Oxford. The study will focus on the undergraduate context. This is because we wish to investigate the special nature of the Oxford tutorial system, and also because similar studies, which constitute a source of comparative data, focus solely on undergraduate learning.

Research carried out in other universities consistently demonstrates an association between students’ perceptions of their learning environment and the quality of their achievements. Higher levels of achievement appear to correlate with learning environments that are perceived by students to include: some independence in determining what and how they learn; clear learning objectives; informed and supportive teaching; appropriate assessment; and appropriate workloads (Ramsden, 1991). Oxford is not, however, the same as other universities. Whether the perceptions that Oxford students hold indicate that these, or other factors, are significantly related to the quality of their learning, is a question that will be examined in this study.

The Oxford study will be conducted in two phases. The first will focus on testing existing data collection methods (such as the Course Experience Questionnaire, Ramsden, 1991) and on identifying aspects of the Oxford system that differ from those investigated in the previous research. This phase will be largely qualitative, and may involve research collaboration between college tutors and members of the Institute. The first phase of the project will supply an account of how the students sampled perceive the learning environment of the University and college. It will enable us to ascertain the extent to which Oxford students’ perceptions of their context are similar to, or different from those described by students elsewhere. In the second phase a larger, more quantitative study will make use of the data from the first phase to explore relations between variables.

We will look at how the perceptions of high achieving students...differ from those of other students, and how this information can be used to improve the learning of all students at Oxford.

The research the Institute is undertaking has two primary purposes. First, the data from an analysis of the context as perceived by undergraduate students will be made available to participating colleges and the University. We hope that this data will assist those all those in the University with responsibility for learning and teaching. It may be of particular significance in areas such as course design and review, academic development, and quality assurance matters. At this level, the research contribution may be characterised as being for the University of Oxford. The second purpose may be characterised as a research contribution from the University of Oxford to the international community. The Oxford data will enable further investigation of several contemporary higher education research issues, including studies of high-achieving students’ approaches to learning in research-intensive universities (Lindblom-Ylanne and Lonka, 2000) and studies of variation in learning patterns of “homogeneous” student groups (Prosser et al., 2000). A positive side-effect of the research is that, whilst the approaches used in research of this type are not intended to be developmental, they do encourage students to think about aspects of their learning that they would not normally consider. As a result, colleges participating in the study might anticipate modest gains in learning for some students involved in the project.

If you are interested in knowing more about this project, an extended account may be found in the research section of the Institute website (www.learning.ox.ac.uk). For further information, please contact Keith Trigwell on 2-86810 or keith.trigwell@learning.ox.ac.uk.

REFERENCES:
What do tutors do?

Each day in Oxford, students experience tutorials that are inspiring, intellectually challenging and expressive of a powerful learning partnership. This article is an attempt to capture something of the nature of the tutoring expertise that underlies them. It is based upon interviews with three tutors, chosen for no other reason than that we knew them. They are of interest to us as examples of how tutors generate approaches to tutoring that work for them and their disciplines, and we are grateful to our interviewees for sharing their insight with us.

According to educational research and indeed common sense, what distinguishes expert teaching in higher education is not simply the breadth of disciplinary knowledge displayed by academics. Rather, expert teaching derives from academics’ ability to combine their own knowledge with an understanding of how students, engage with new subject matter and integrate it into their existing understanding.

Tutors’ often tacit knowledge of what students can find difficult to grasp, and their sense of what students find most interesting to explore, guide the ways in which they draw upon their own disciplinary knowledge and the resources in their environment. Dr. Ngaire Woods (Lecturer in Politics and Fellow of University College) told us about her strategy for teaching first year students. She has several aims for these tutorials: to encourage students to abandon the assumption that everything that is printed in a book is unquestionably true; to help them to create a detailed understanding of a particular argument; and to nurture their confidence in generating their own views of authoritative academic writing. Her students work in teams of three or four, together preparing a critique of a key text. The prepared critique is then presented, by the group, to the author of the text, whom Dr. Woods will have invited to respond to the students. In the process of preparing their argument, her students learn about more than the subject matter under discussion: they also learn something about teamwork and the value of collaboration. Debat ing with each other, she believes, helps students to fully engage with material, and internalise their own understandings of it. At the end of this exercise, Dr. Woods discusses it with her students to see how they have experienced it, and sometimes modifies how she uses it. Teaching expertise, as Dr. Woods’ work demonstrates, determines how tutors think about, plan, monitor and evaluate what they do.

After some decades of discussion about the nature of the ‘study skills’ that underpin academic communication, recent research has emphasised the importance to students of learning to appreciate the conventions of academic argument within their discipline. Appreciating the conventions of academic writing means, for instance, knowing what counts as evidence and why; how examples are used; and how arguments are framed. It means gaining a level of fluency in discipline-specific discourse; the way physicists write for physicists or linguists argue with linguists. Much expert teaching demonstrates these conventions to students. From the beginning of the first year course Dr. Heather Viles (Lecturer in Geography and Fellow of Worcester) sets her geography students a deliberately wide variety of reading: a chapter each from a range of textbooks, a variety of articles and an extract from a web site, perhaps. She asks them to discuss not only the content of the reading they undertake but also its structure, approach and purposes. Her students are expected to make an assessment of all its style, to examine its use of graphs, diagrams and photographs, and to consider how the literature is or might be used for differing purposes.

The relationship between research and teaching is both long-assumed and increasingly called into question, so it was interesting that our tutors drew on their research activity to formulate strategies for helping students to consolidate their understanding. For example, from the perspective gained from his research in non-metallic materials, Dr. Paul Buckley (Lecturer in Engineering and Fellow of Railton) recognises that mechanical engineering textbooks tend to present arguments in a way that assumes that everything is made out of steel. In his view, students need help to separate out concepts that are, as he puts it, ‘usually jumbled up’ in their core texts. He therefore challenges his students to interrogate textbook problems from a range of different angles. So he might ask, ‘Supposing [the structure] was made out of chewing gum, would you get the same answer?’ As well as enabling his students to see the in-built bias in the text book explanations, Dr. Buckley’s use of this apparently simple questioning strategy discourages his students from reliance on rote-learning, and encourages them to seek to understand in greater depth the principles under consideration.

Is there anything to be learned from the approaches to teaching that other tutors adopt? Same might reply, very little. ‘Good teaching’, it is argued, is so highly contextual that what works for one tutor may not work for another. It is clear that our interviewees’ approach to teaching is indeed a unique response to their own discipline, circumstances, and preferences. But while slavish imitation would be unwise there is still much that might be learned by analogy from these examples.

An associated argument is that attempting to conceptualise ‘good teaching’ independently of student learning is meaningless. The tutors we interviewed seemed to conceptualise teaching as, above all else, a partnership with their students. They therefore thought carefully about student feedback, spending time eliciting students’ views and considering how to respond to them. A distinguishing feature of the scholarship of teaching, it has been argued, is that it thrives in collaborative communities.

The collaborators are colleagues as well as students, and talking and writing about teaching is a way of nourishing, renewing, and invigorating it. If we agree that learning and teaching are
EXPLORING TEACHING

inseparable, and that 'outcomes' depend upon collaboration between learners and teachers, it becomes difficult to treat teaching as a matter of individual teachers' performance, and even more difficult to accept associated initiatives such as performance related pay. Arguably, however, we need exemplars: teachers whose work is worth emulating. Would the collective enterprise of teaching be destroyed if we singled out for recognition those whom we believe to be our best teachers? Research is also, undoubtedly, a collective enterprise, and one that does not seem to have been impoverished by decades of recognition for our best researchers. Should we recognise expert teachers in the way we recognise expert researchers? And if so, how shall we know them?

1 Sternberg R. J. and Horvath J. A. 'A Prototype View of Expert Teaching' Educational Researcher 24 (6).

Interviews conducted by Steve Maxwell.

DEVELOPING TEACHING

Diploma in Learning and Teaching in Higher Education: a participant’s view

A feeling of liberation accompanied my teaching in Michaelmas 2000. A recent ‘graduand’ of the University’s Diploma in Learning and Teaching in Higher Education, I compared my approach with the way I had taught the same class a year earlier. I now felt better able to focus on the students’ experience, and less taken up with concerns about my own active contribution or ‘performance’. I felt that I had a clearer understanding of the students’ learning and greater confidence about what was being achieved through my teaching.

I was among the first group of academic ‘guinea pigs’ to participate in Oxford’s part-time Diploma for Oxford academic staff. At the outset, all of the newly assembled ‘students’ were unsure about exactly what the course would have to offer us. My fellow participants were both more and less experienced than myself, ranging from Junior Research Fellows engaged in the minimum three hours a week of tutorial teaching, to University Lecturers with some 15 years teaching experience. Our motivations for attending were diverse: they included a desire to affirm that ‘teaching matters’; a wish to develop particular teaching initiatives; the hope that the course might help to deal with external pressures such as QAA audit; and the prospect of acquiring membership of the Institute for Learning and Teaching (ILT). All of the participants placed a high value on teaching and wanted both to develop their own practice and to contribute to the development of the Diploma programme.

The participants were one of the most important resources that the Diploma supplied. It would, in itself, have been an enlightening and enjoyable experience just to talk about teaching with these academics drawn from a range of disciplines across the University. The structure of the Diploma’s day-long seminars encouraged an immediate and lasting camaraderie, and I am happy that many of the relationships I established will continue beyond the course itself.

In some respects the most informative part of the course was being able to experience being a student again. I was impressed throughout by the openness and enthusiasm of the course presenters. The course was running that year as a pilot and they were positively encouraging of feedback of whatever nature. Oxford academics are a hard group to satisfy and plenty of critical feedback was forthcoming! Many participants felt that the course should be less theoretical and more applied, telling us how to teach rather than engaging with educational research. Those wanting straightforward instruction in ‘teaching tips’ were disappointed, as the emphasis lay more on understanding student approaches to learning and responding to them in unique ways. However, different teaching methods were modelled during the course (and influenced my teaching practice) without being the main focus of the course content. Much of the work in seminars was based around group discussion, which was motivating and useful. Old habits dying hard, the participants actually requested – and duly received – a traditional lecture.

With some trepidation, we embarked on two terms of peer-observation of each other’s teaching. To our surprise, it was not disruptive having a supportive course participant observing one’s work. It was a privilege to gain an insight into the private world of a fellow tutor, and illuminating to look at tutorial processes and students’ reactions even where it was not possible to entirely follow the content of another discipline.
In some respects the most informative part of the course was being able to experience being a student again, examining our own responses to engagement in a novel and, to some, alien discipline. From this perspective, it was often the aspects of the course that went wrong that were the most illuminating. An initial problem-based learning seminar did not work well for me, because the problem that we were asked to work on was too general to allow us to properly engage in it (this problem has now been made more specific). A later session was more motivating, as it was a genuine problem grounded in real Oxford materials. Being confronted with a vast amount of literature to master in a short period of time overwhelmed most participants, and brought home the reality of being presented with an overlong, un-annotated tutorial reading list. (Needless to say, the protestations of the pilot cohort have led to a dramatic reduction in the quantity of material included in the course.) Assessment is through the submission of a portfolio, an unfamiliar concept for most of us. Despite being set out in descriptive fashion, the criteria for assessment of the portfolio seemed to most of the participants not particularly informative, and the problem of understanding what we were aiming to produce was aggravated by the non-existence of any previous portfolios for comparison. It soon became apparent as we struggled to understand what we had to write – and relate that to our work on the course – how much the issues and anxieties surrounding final assessment structure students’ approaches to their studies.

Completing the teaching portfolios presented interesting questions about what should count as assessment. Many participants initially felt it was somehow ‘cheating’ to submit material they would anyway have developed for their teaching. Atypically, I did not focus on the assessment criteria until rather late in the process, and confronted the requirement that the portfolio should demonstrate a ‘reflective’ approach to my own teaching practice in the final stages of the course. Whilst I felt confident that all of the participants were ‘reflective’ in the context of our discussions with each other during the course, I felt that there was a peculiarity about, and some tension in, engaging in reflection for the purposes of assessment. For me, it seemed to lead to a disappointingly thin and ‘intellectualised’ account of my teaching experience, not succeeding in capturing its richness or complexity.

Overall, I – and I believe other participants – would strongly recommend the experience, but undertaking the Diploma is not an undemanding option. Participants learn in different ways and at many different levels on the course, but ultimately, making the link between personal teaching practice and educational research is not easy. The course team and pioneering participants worked hard to bridge this gap, to the evident benefit of the students we all teach; and, we hope, to the benefit of future course participants, other members of the University, and the higher education research community.

Dr Fiona Spensley, Fellow of Lady Margaret Hall

Dr Spensley undertook the Diploma in Learning and Teaching in Higher Education whilst she was teaching full-time in the Department of Experimental Psychology. She continues to tutor undergraduates in psychology and is also now a course tutor on the Diploma.

We are currently accepting applications for places on the Diploma in Learning and Teaching in Higher Education commencing in September 2001. If you are interested in finding out more, please contact Sapna Shankar, 2-86806 or look at our website at www.learning.ox.ac.uk. Applications close on 27 April 2001.
The Institute’s Staff

Director of the Institute: SUZANNE SHALE
Suzanne is responsible for the leadership and strategic development of the Institute. She is also the Director of the Postgraduate Diploma in Learning and Teaching in Higher Education and contributes to the Institute’s research programme. Suzanne has been a fellow and tutor of law at New College since 1989 and has been involved in University teaching for over fifteen years. She continues to teach law, whilst her research interests include professional and graduate education. She is a member of the University’s Educational Policy and Standards Committee.

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Rebecca is responsible for the day-to-day management of the Institute as well as the management of the Institute’s business development activities. She also contributes to the Institute’s professional development activities, particularly to those in the area of management development. Rebecca works collaboratively with staff to tailor support programmes to their particular departmental context, whilst drawing on her ten years of management experience. Rebecca has been working at Oxford since 1992, when she was appointed as the University’s first Equal Opportunities Officer. She is the secretary to the Faculty Teaching Representatives meetings.

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Gaynor’s remit is to work with academic staff in the Science Divisions, to support learning and teaching development. She provides advice and support in planning, monitoring and evaluating learning and teaching at faculty or department level. She is also a course tutor on the Postgraduate Diploma in Learning and Teaching in Higher Education. Her doctoral thesis was a qualitative study of the experience of first year medical students on an innovative problem based learning course. Gaynor practised as an anaesthetist until 1990, when she embarked upon a second undergraduate degree in psychology. Following this, she worked as a researcher, and then as a Lecturer in the Department of Health Care Education at the University of Liverpool.

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Duna works with academic staff in the Humanities and Social Sciences Divisions to support learning and teaching development. She works in a variety of ways with departments and individuals: leading seminars, contributing to policy development on learning and teaching and supporting individual tutors. She is responsible, with Gaynor Lloyd-Jones, for the Institute’s seminars on learning and teaching, which are run jointly by Institute staff and experienced lecturers from a range of disciplines in the University. She is a course tutor on the Postgraduate Diploma in Learning and Teaching in Higher Education. Her research interests include the enculturation of new academics and approaches to developing teaching within academic communities of practice. The latter is the subject of her doctoral research. Duna joined the University in 1997 after 3 years at Royal Holloway College, University of London, working in research and development in equal opportunities. She is a fellow of Harris Manchester College.

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Keith directs the Institute’s learning and teaching research programme. He also co-ordinates the support that is offered to academic staff in colleges and departments to enable them to conduct their own investigations into teaching and learning. An international authority on learning in higher education, Keith joined the Institute after seven years as Director of the Centre for Learning and Teaching at the University of Technology, Sydney. His research into experiences of university science teaching resulted in the development of the ‘Approaches to Teaching Inventory’ that has been adopted by universities around the world. Six studies funded by the Australian Research Council and carried out jointly with Michael Prosser underpinned the recent publication of their book “Understanding Learning and Teaching: The Experience in Higher Education” (Open University Press, 1999).
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As well as contributing to the Institute’s research programme, Paul is responsible for supporting academic staff at Oxford who wish to carry out research into learning and teaching. Rather than offering generic training in educational research methods, Paul will be using his expertise to help academic staff to define and investigate their own questions about teaching and learning at Oxford. Paul’s doctoral research focused on the processes and outcomes of ‘peer learning’ for different groups of students. His research interests include the relationship between teaching and learning and he is keen to examine this in the context of the Oxford system.
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