Teaching and Learning in Higher Education
Sara Miller McCune founded SAGE Publishing in 1965 to support the dissemination of usable knowledge and educate a global community. SAGE publishes more than 1000 journals and over 800 new books each year, spanning a wide range of subject areas. Our growing selection of library products includes archives, data, case studies and video. SAGE remains majority owned by our founder and after her lifetime will become owned by a charitable trust that secures the company’s continued independence.
To our families who, through their continuing support and patience, have made this book possible.
List of Figures  ix  
List of Case Studies xi  
Acknowledgements xiv  
About the Authors/Contributors xv  
Preface xx  
New to this edition xxiv  
Foreword xxv  

Part One Understanding Educational Enquiry  1

1 What is educational enquiry and why is it important?  3  
   Elizabeth Cleaver, Maxine Lintern and Mike McLinden  

2 What do I need to know before I read educational literature?  23  
   Mike McLinden, Elizabeth Cleaver and Maxine Lintern  

3 How is educational literature evidenced and reviewed?  38  
   Mike McLinden, Elizabeth Cleaver and Maxine Lintern
Contents

4 What about ethics and safety?  
*Elizabeth Cleaver, Maxine Lintern and Mike McLinden*

5 What kind of data should I collect and use?  
*Maxine Lintern, Mike McLinden and Elizabeth Cleaver*

6 What about dissemination and impact?  
*Maxine Lintern, Mike McLinden and Elizabeth Cleaver*

Part Two Enquiry in the Disciplines

Introduction 115

7 Enquiry into learning and teaching in the physical sciences  
*Tina Overton and Ross Galloway*

8 Enquiry into learning and teaching in mathematics and engineering  
*Michael Grove and Joe Kyle*

9 Enquiry into learning and teaching in the life sciences  
*Graham Scott and Anne Tierney*

10 Enquiry into learning and teaching in arts and creative practice  
*Julian McDougall and Susan Orr*

11 Enquiry into learning and teaching in the humanities  
*Rebecca O'Loughlin and Elaine Fulton*

12 Enquiry into learning and teaching in the health professions  
*Sharon Buckley, Patricia Fell and Peter Draper*

13 Enquiry into learning and teaching in the professions: the case of law  
*Rob Clucas and Gerry Johnstone*

14 Interdisciplinary enquiry into learning and teaching: lessons from geography  
*Jennifer Hill, Helen Walkington and Helen King*

15 Enquiry into learning and teaching in the social sciences: engaging with ethnographic research  
*Lisa Dikomitis and Emma Kelly*

Part Three Promoting a Culture of Enquiry 267

16 Developing and promoting a culture of critical enquiry within higher education: some final reflections  
*Mike McLinden, Elizabeth Cleaver and Maxine Lintern*

References 277

Index 301
CHAPTER 1

WHAT IS EDUCATIONAL ENQUIRY AND WHY IS IT IMPORTANT?

Elizabeth Cleaver, Maxine Lintern and Mike McLinden

Learning outcomes

By the end of this chapter it is anticipated that you will:

• understand the broad context in which the growing emphasis on and expectations around educational enquiry are taking place;
• recognise the skills, understanding and knowledge that you can bring to the educational enquiry process; and
• understand the potential benefits of adopting an enquiry-based approach when seeking to improve your own teaching practice and the learning of your students.
Introduction

In this first chapter we provide an overview of the broad context in which the current refocusing of institutional policies towards excellence in learning and teaching practice within higher education has taken place in the United Kingdom (UK). In doing so, we examine the growing expectation for academic staff to use their skills of research, scholarship and higher-order thinking to improve and enhance their teaching practice and their students’ learning experiences. Since the first edition of this book in 2014, this emphasis has become even more explicit in the UK, with the introduction of the “Teaching Excellence Framework” (TEF) and the now annual collection by the Higher Education Statistics Agency (HESA) of data on each institution’s staff members with relevant teaching qualifications and/or teaching-related professional fellowships. Your reading of this chapter should help you to understand the context in which these expectations have arisen and the reasons why we consider that undertaking educational improvements and enhancements are important. Our main aim is to encourage you, as academics in higher education, to enhance your practice and the learning experience of your students by asking the right questions; carefully monitoring and evaluating any changes made to practice and making evidence-informed decisions for change. Such an approach will not be alien to you as an academic as it informs all research work in higher education, business or industry. Through this book we hope to show you how you can apply approaches and methods of research, with which you are familiar, to your own learning and teaching practice.

We recognise that for many readers, this will not be the first time that you use the skills of research, scholarship and higher-order thinking for the improvement of your learning and teaching: we are all responsible for ensuring that the latest developments in disciplinary knowledge are synthesised and integrated into our higher education curricula. What may be less familiar, however, is a focus on making sure that the approaches to teaching this knowledge are also the most up-to-date and appropriate ones for your subject area. The challenge for us all is, in essence, no different from the challenge that we pose our students on a daily basis: namely that of moving from assumption, supposition and non-informed opinion to a more evidence-based consideration that involves information gathering, analysis, conclusion drawing and decision making.

1In TEF Year 3, the full name of the scheme became the ‘Teaching Excellence and Student Outcomes Framework’, however the acronym TEF remains. From 2019, under the new Office for Students regulatory framework in England, participation in the TEF will be compulsory for all English providers over a certain size who wish to register. The Higher Education Research Act (HM Government, 2017) also allows for TEF to rate the institutions from devolved nations with the consent of devolved ministers responsible for higher education. However, participation of institutions from the devolved nations (Wales, Northern Ireland and Scotland) remains voluntary at the time of writing.
WHAT IS EDUCATIONAL ENQUIRY?

Our experience suggests that, for many colleagues, this is not always an easy journey to make. Research and scholarship can be conceived of and defined in very particular ways within different disciplinary areas. Yet within formal higher education teaching development programmes in UK higher education or continuing professional development opportunities, there may be an expectation that academics will adopt a ‘social-scientific’ approach to researching, evaluating and writing about their learning and teaching. And while there is a clear logic to these expectations, as the social sciences are built around the study of people within their social and cultural contexts (such as higher education settings), such an approach may require you to venture into largely unknown territory, particularly, if the social sciences are characterised by potentially unfamiliar paradigms, language, research approaches and methods as well as a different understanding of what constitutes ‘validity’. As Stierer notes, academic colleagues can find entering the ‘strange land’ of higher education studies extremely challenging (2008: 35). Indeed, MacDonald-Ross goes further, stating that ‘[t]here is widespread dissatisfaction with educational research as being restricted to a relatively narrow range of techniques and values, and complaints come from all quarters’ (2005: 17).

We fundamentally believe that the process of ‘enhancement’ is key to educational improvements (curricular, pedagogic and experiential) and that this should, wherever appropriate, adopt and adapt the approaches that have been developed and valued in higher education, including the processes of rigorous evidence-gathering and unbiased critical analysis. We nevertheless seek to question a frequently unquestioned approach to teaching and learning development: namely that academics from all disciplines need to draw on social scientific approaches and paradigms when researching or evaluating their learning and teaching practice.

Many of you, as practising academics in higher education, will have been engaging with research in your respective disciplines for a number of years. Some of you will be seasoned researchers with a clear understanding of the academic processes of peer-review, publication and the sharing of results and data to inform disciplinary developments. You will also be familiar with the acknowledged approaches to evidence gathering and analysis within your disciplines. As experienced academics ourselves with backgrounds in different disciplines, we are aware that developing new or additional research skills may not always be practicable or indeed desirable. This may be because many of the approaches, methods, settings and forms of language usually drawn upon in pedagogic ‘research’ are far removed from your current research expectations, practices and understandings (an issue explored further in Chapter 2; see also Keeran & Levine-Clark, 2014, and Poole, 2013, for a discussion of disciplinary differences in research approach). It may simply be because you are so busy in your current role, that developing expertise in different ways of working is not high up on

---

2These are named differently in different institutions, but often use the titles Postgraduate Certificate (PGCert) in Learning and Teaching, in Higher Education or in Academic Practice.
your agenda. As such, the central thrust of our argument in this text is that your own disciplinary research approaches can provide a valid and useful starting point for enquiring into aspects of your own teaching and learning activities with a view to enhancing this practice.

It is also worth noting that within this text we have opted, where possible, not to use terminology that can be misconstrued or invite unhelpful comparisons. In academic circles we can sometimes be so keen to debate our relative understandings of language and associated phenomena, that we can be in danger of losing sight of why they were introduced in the first place. As such, we have chosen not to refer to your enhancement activities as 'research', to avoid unnecessary comparison with established understandings of disciplinary research. Similarly, we have decided against using the augmented terminology of 'practitioner' research (see e.g. Flynn & McDermott, 2016; Foreman-Peck & Winch, 2010) or 'action' research (see e.g. Altrichter et al., 2008; Koshy, 2010; Koshy et al., 2011); both terms that are widely used in a number of professions for small-scale and applied forms of enquiry within the work-setting. This decision is based on our experience that speaking to colleagues about their 'practice' and identifying them as 'practitioners' can sometimes lead to confusion and, in some cases, irritation and rejection of this label outright. The term is often more acceptable if your professional identity and role have an academic overlap, such as those who are clinically qualified, those who work in the 'professions' or those who are expert practitioners in the creative industries. However, we recognise that for many of you these identities may be viewed as relatively discrete aspects of your working life.

Further, both 'practitioner' and 'action' research can be viewed as being variations that are so localised and often small-scale in nature that they are considered to be of less value. This was interestingly reflected in the guidance published to those who engaged with the UK's Research Excellence Framework (REF) in 2014, which defined such activities as being 'non-returnable':

a. Impacts on research or the advancement of academic knowledge within the higher education sector (whether in the UK or internationally) are excluded;
b. Impacts on students, teaching or other activities within the submitting HEI are excluded;
c. Other impacts within the higher education sector, including on teaching or students, are included where they extend significantly beyond the submitting HEI (REF, 2011: para. 143, emphasis added).

In seeking other ways of describing and conceptualising the kind of activities and approaches we are advocating in this text, we have also considered using a term whose use has grown over the last two decades, predominantly in

---

3The Research Excellence Framework (REF) is the UK's six-yearly national evaluation process, designed to assess the quality of research in UK HE and builds on the Research Assessment Exercise (RAE) last completed in 2008. The next REF is due to take place in 2021.
WHAT IS EDUCATIONAL ENQUIRY? 

the United States (US). The ‘Scholarship of Teaching and Learning’ (or SoTL – pronounced so-tle) comprises activity which focuses on evidence-based improvements to learning and teaching, often from a disciplinary starting point:

the mechanism through which the profession of teaching itself advances, through which teaching can be something other than a seat-of-the-pants operation, with each of us out there making it up as we go. (Hutchings & Shulman, 1999: 13–14)

However, despite the usefulness of the debates and insights from this established area of work, discussed in more detail later in the chapter, using the term scholarship in the UK creates a particular challenge in that the 2014 REF exercise defined scholarship narrowly as:

the creation, development and maintenance of the intellectual infrastructure of subjects and disciplines, in forms such as dictionaries, scholarly editions, catalogues and contributions to major research databases. (REF, 2011: 71)

With this definition so prominent in certain academic circles within the UK, to use the term scholarship may simply serve to confuse and undermine the role that SoTL can play in underpinning academic professional development and ensuring the continuing health of learning and teaching in the disciplines.

Taking these various considerations into account, we have therefore chosen to adopt different terminology, namely: educational enquiry. We believe this term can accommodate and describe a process through which you are able to draw on your disciplinary skills and understandings of research, recognising that these may be employed at a different level and with a different focus and outcome, with the primary aim of improving your understanding and practice in learning and teaching. In the remaining sections of this chapter we explore in greater detail why we believe the term ‘educational enquiry’ is both valuable and appropriate. However, to begin, we offer a brief overview of the wider context in which the growing need to employ the skills of educational enquiry sits, including key developments since the first edition of this text was published in 2014.

Higher education in context

As you will doubtless be aware, the broad context in which higher education sits is changing at a pace more rapid than we could have envisaged even four years ago. Drivers for change continue to include those that we highlighted in the first edition, including expectations of greater access to higher education (commonly termed the ‘widening participation’ agenda in the UK), drives towards increasing quality, flexibility and diversity, as well as a curriculum that has, as a central focus, student engagement, employability and transferable skills. Paralleling these shifts, and with rising student fees in the UK, there is now ever more expectation that programmes of study in higher education have no ‘hidden’ costs
and that they offer value for money. As fee-payers, students are now recognised as seeing their choice of institution and programme of study as very real ‘investment’ in their future. This, combined with the UK Competition and Markets Authority’s (CMA) direct identification of students as individuals who ‘purchase’ their higher education, with associated consumer rights (CMA, 2015), means that students’ expectations of higher education institutions have fundamentally shifted.

These changes inevitably interact with a range of other social changes and advances, including the growth of information and digital technologies, the growing recognition that learning takes place beyond the classroom in life-wide settings, as well as an increasing recognition that learning is not a one-off but a life-long experience. As educators in the UK, we are also now required through legislation (e.g. the Equality Act, HM Government, 2010) to address the needs of our diverse student bodies in terms of curricular design, delivery and assessment as well as through broader student support mechanisms. This expectation has taken on new impetus with a reduction in the types of support funded by the UK Disabled Students’ Allowances (DSAs) and the expectation that higher education institutions (HEIs) themselves will make up for many of these changes.

Students as stakeholders and partners in their learning

This shifting landscape has resulted in a greater emphasis on enhancing the quality of the learning experience, with students increasingly viewed as active participants, or indeed ‘partners’ or co-creators, in the learning process. As Seemiller and Grace (2016: 204) state: ‘teach with, not at’. It should not be forgotten that these changing views of the status of students are connected to broader policy and social shifts in current Western society, aligned to the growing consideration of human, social and democratic rights for traditionally underrepresented groups, and an associated growth in the importance and expectation of broad stakeholder consultation, participation and voice. Within this context, the importance of student ‘voice’ and ‘participation’ is now widely accepted and most institutions offer a wide range of formal and informal mechanisms through which their students, as key stakeholders, can get involved, have a say and actively contribute to the enhancement of their educational experience.

Most recently, a specific set of social and cultural shifts, broadly aligned to a new generational grouping (so-called Generation Z) have been identified, which help us to create a more nuanced understanding of one key undergraduate

---

4See the Hidden Costs Toolkit provided for local Students’ Union campaigns by the UK’s National Union of Students (NUS, 2017) which was first introduced prior to the current fees regime of up to £9,250 per annum per student.

5See Cleaver et al. (2007) for an earlier discussion of the growing participatory agenda in relation to young people; see also Saurugger (2010) and Bherer et al. (2016) for a broader discussion of what has been termed ‘the participatory turn’.
student group – those who come to university straight from secondary education (see Beamish, 2016; Seemiller & Grace, 2016). In brief, Generation Z (encompassing those born 1995–2010) have had formative years fully shaped by the internet, form the most openly diverse generation to date, and see time, space and types of social interaction as more fluid than ever before. Within Western societies such as the UK, that are perceived to have moved to a state where traditional social structures and hierarchies are breaking down, where information is available on-tap, and where everyone has a right to speak up and contribute, Generation Z are seen to expect to invent, co-create and share artefacts and ideas, expertise and opinion. They also feel comfortable in communicating about this at all stages of the process, in a variety of (increasingly online) ways. New forms of working facilitated by the internet, such as hackathons (competitions to bring new ideas to life) and the crowdfunding of initiatives and ideas (gathering up small donations to finance developments) are seen as increasingly normal. At the heart of these practices is the expectation of active participation and engagement at times and in formats of an individual's own choosing (consider for example the range of social media platforms that can be selected and used 24/7). In terms of learning, this might best be understood by thinking of Generation Z as students who still enjoy learning together but often wish to do so in ways and at times that suit them individually – what we term learning apart together. As Seemiller and Grace (2016: 183) state ‘the students in our study described their ideal learning environment as one that incorporates independent and hands-on work with engaging instructors and supportive peers’.

In this fast-changing context, the profile and expectations of teachers’ roles in higher education have understandably and necessarily changed. While the shift from didactic and teacher-centred to participative and student-centred learning in higher education has been in evidence for some time, there is now an increasing expectation that academic colleagues can provide strong rationales as to ‘why we do things the way we do around here’. In short, if students really are partners in their learning, with a desire to understand the nature and benefits of their ‘investment’, they are less likely to be satisfied with being told ‘this is just how it is’. From our experiences, students increasingly expect and welcome opportunities to understand the ‘whys and wherefores’ of their education, and to actively contribute to and co-create their teaching and learning experiences.

*In the 1990s, as part of what has been termed the individualisation of late-modern society (see Beck & Beck Gernsheim, 2002; Giddens, 1991), the concept of ‘living apart together’ arose (see Heath & Cleaver, 2003; Levin, 2004) to describe those who actively engage in new forms of relationships, breaking with the social conventions of previous generations, by maintaining serious long-term relationships, yet living under different roofs and often at a distance. We argue here that the same could now be said for learning.*
Some recent policy turns

Two recent changes in the UK HE landscape are also worthy of note here. First, aligned to the increasing expectations of students, and to provide assurances that their learning will be facilitated by the best qualified staff possible, there has been increasing policy and institutional emphasis on the qualifications and professional development of those who teach and support learning in HE. Often aligned to the sector-owned UK Professional Standards for Teaching and Supporting Learning in HE (UKPSF, 2011), the expectation placed upon many academics is that they meet the standards outlined in the UKPSF and can evidence this through a Fellowship of the Higher Education Academy (see HEA, 2017) at a level relevant to their current role. Within the UK HE sector, institutional continuing professional development schemes accredited by the Higher Education Academy have burgeoned, with the outcome of successful accreditation being the ability to award fellowships in-house. Data on higher education teaching ‘qualifications’, which include categories aligned to these professional development fellowships, is now collected annually by the UK Higher Education Statistics Agency (HESA, 2017), and many UK institutions now have institutional targets for the number of ‘teaching active’ staff who have achieved the appropriate level of fellowship.

Whilst this change is of interest in its own right, of particular relevance to this text is the expectation that those who are assessed against the UKPSF can evidence engaging with the following dimensions:

- ‘continuing professional development in subjects/disciplines and their pedagogy, incorporating research, scholarship and the evaluation of professional practices’ (A5);
- ‘methods for evaluating the effectiveness of teaching’ (K5); and
- ‘evidence-informed approaches and the outcomes from research, scholarship and continuing professional development’ (V3; UKPSF, 2011).

A second development, which has caused sector-wide reverberations with a clear and growing impact on teaching and learning activities, is the introduction of the UK’s Teaching Excellence and Student Outcomes Framework (TEF). At the time of writing, TEF is in its third year of implementation at institutional level, with subject-level TEF pilots being undertaken in 31 HEIs and a sector consultation underway. In brief, the TEF has been introduced to provide national recognition of ‘excellent teaching, in addition to existing national quality requirements for universities, colleges and other higher education providers’ as well as ‘information to help prospective students choose where to study’ (HEFCE, 2017). TEF uses proxy measures for ‘teaching excellence’ to award gold (the highest rating), silver or bronze status; measures which include elements of the UK’s National Student Survey (NSS) results as well as student progression and employability data. In 2017, each HEI was also offered the opportunity to complete a fifteen-page written
submission, to explain the context within which their metrics sit and to provide an overview of the wider learning environment of the institution. There has been a significant amount of controversy about the ‘metrics’ that sit at the heart of TEF (see e.g. the special TEF-focused edition of *Compass: The Journal of Learning and Teaching*, 2017 and particularly Gibbs, 2017). Following extensive discussions with stakeholders, the UK Government has now refined the core metrics for Year 3 of operation to include the reduction of weighting for NSS metrics, the inclusion of Longitudinal Education Outcomes (LEO) data and a grade inflation metric to strengthen accountability. And whatever our views on the metrics and direction of travel that TEF is taking, it does appear that it has managed what numerous previous initiatives have failed to do: raise learning and teaching investments, activities and outcomes back up the HE agenda in the UK.

**Linking research and teaching through enquiry**

In combination, these and other social, cultural, policy and practice shifts have contributed towards, and been influenced by, a gradual re-evaluation and recalibration of the relative importance of and connections between research and teaching within university settings. One key contribution to the debate (Boyer Commission on Educating Undergraduates in the Research University, 1998) defined a new way of working for higher education in research-intensive universities in the United States. The work takes forward Boyer’s (1990) earlier critique of disconnections between research and teaching for staff, with the focus now clearly on students. It called for a new model of undergraduate education based on research, with opportunities provided for group work and other participatory activities. Aligned to broader expectations of participation in society, the report argued that the production of knowledge should not remain an elite activity, but one that all members of an institution can and should engage in. This influential report proposed that undergraduates who enter such universities should engage in discovery activities as active participants, including opportunities to ‘learn through inquiry’ rather than through simple knowledge transmission. In essence, the Boyer Commission advocated a more ‘student-centred’ approach to teaching, with students actively engaging in enquiry-based activities as members of academic communities, forming one example of the widespread move in HE from a ‘teacher-centred’ conception of the learning process towards a more ‘student-centred’ model (McKinney & Levy, 2006). As noted by McLinden and Edwards (2011), over a decade later the notion of ‘learning through enquiry’ has been

---

In this text, we recognise the interchangeable nature of the terms ‘inquiry’ (largely present in US literature) and ‘enquiry’ (largely present in UK literature). For the purposes of this book, and to reflect our own national origins, the authors of the chapters use the term enquiry. However, when referring to the work of others, or directly quoting, the term inquiry may be substituted.
explicitly drawn upon by a wide range of HEIs, to ensure that students have opportunities to engage in enquiry-led activities from an early stage in their learning experience.

Publications and case studies outlining a range of ways in which to connect research and teaching in higher education curricula and pedagogies have followed suit, with many making reference to the work of two notable nineteenth-century scholars: Cardinal Newman in England and von Humboldt in Germany. Graham-Matheson (2010) notes that the work of Cardinal Newman is often cited as an important influence on defining the role of modern universities, given the emphasis he placed on describing a university as a place where the pursuit of knowledge and the education of the intellect were ‘mutually supportive’. This view went on to provide a template for ‘liberal education’ in an expanding university sector for the next 100 years (Graham-Matheson, 2010). During a similar period, the Humboldtian university ethos emerged. Robertson (2007) notes that von Humboldt conceived of a community of learners (teachers and their students) working together at the University of Berlin in the nineteenth century in the pursuit of knowledge. Thus, rather than the presentation of finished results to students in a one-way transmission of knowledge, the approach advocated student involvement in the construction of knowledge and ideas. Indeed, teaching was viewed as being embedded in research and undertaken through research – as such teaching and research were considered ‘inseparable’ (Robertson, 2007: 542).

However, your own experience of working in higher education may lead you to conclude that, these debates and analyses notwithstanding, the lines drawn between teaching and research within higher education appear as pronounced as ever. As an example, some institutions have developed academic promotions criteria which, rather than being based on excellence in all three areas of an academic contract (broadly captured as ‘research and scholarship’, ‘teaching and learning’ and ‘administration, service and leadership’), appear increasingly to make reference to excellence in either research or learning and teaching. Moreover, while academics have, in recent years, been increasingly employed on ‘research-only’ contracts at the beginning of their academic careers, the current rise in teaching-focused contracts is a relatively new phenomenon. At first glance this could be seen to be levelling what has become a quite uneven playing field; however the reality can be starkly different. Teaching-focused contracts may have little or no ‘research-time’ allocated within them and, if funding for, and/or

---

8Service is a term which is used to describe academic activities that take place, within institutions and beyond, some of which support the deliberative committee structures of higher education decision making and the peer-reviewed quality assurance processes in research and teaching. These may include, for example, acting as a reviewer for journals and books, sitting on institutional quality assurance committees, hosting or presenting at international conferences and taking on external examining roles across the sector (see MacFarlane, 2007).
publications from, pedagogic research are achieved, these are often viewed as less important or worthy than disciplinary research funding and outputs, particularly given the focus of past REF guidance outlined earlier in this chapter.

Nearly three decades on from the publication of Ernest Boyer’s (1990) paper calling for a reshaping of the ‘priorities of the professoriate’ to allow for four complementary aspects of scholarship9 to be valued in equal measure, to bring legitimacy to the full range of academic duties, divisions between research and teaching appear to be as widespread as ever before, (see e.g. Bienenstock et al., 2014; Strachan et al. 2012). In the UK, this division has remained, in spite of significant amounts of public finance invested in connecting research and teaching in recent decades. For example, £40 million of government funding was released by the Higher Education Funding Council for England’s (HEFCE) Teaching Quality Enhancement Fund (TQEF) in 2006 to provide support for the development of teaching that was informed and enriched by research, and research-informed teaching environments. A further example, is the Economic and Social Research Council’s Teaching and Learning Research Programme (TLRP), a £30 million UK-wide initiative funded by HEFCE and a range of government departments across England, Wales and Northern Ireland, which ran from 1999 to September 2009. Blackmore (2016a: 24) contends that this is because UK policy developments have merely acted to bolster such divisions, with UK Government systems for funding, managing and evaluating research and teaching remaining ‘entirely separate and dealt with by unconnected bodies’. The parallel and perhaps resultant ‘prestige economy’ (Blackmore, 2016b) that has grown up in institutions – where research appears to hold the highest prestige or value of all academic activities – can lead to institutions failing to invest in structural as well as cultural connections between research and teaching.

Concern about these continuing divisions was recently voiced in a UK Government White Paper which argued that ‘for too long, teaching has been the poor cousin of research. Skewed incentives have led to a progressive decline in the relative status of teaching as an activity’ (Department for Business, Innovation and Skills, 2016: p 12). The independent review of the UK’s research audit mechanism, the Research Excellence Framework (REF), further warned that initiatives designed to promote excellence through the REF and the TEF should be wary of causing ‘the reintroduction of a binary divide’ (Stern Review, 2016: 31). In England, where participation in the TEF is now an expectation for institutions who wish to register as an approved institution with the Office for Students (and therefore be able to access income for teaching through public funding, student loans or Tier 4 sponsor licences10), and where REF scores

---

9The scholarships of discovery (undertaking inquiry and investigation); integration (making connections and illuminating); application (problem solving and facilitating change); and teaching (continuously examining pedagogical procedures) (Boyer, 1990: 16–25).

10Tier 4 sponsor licences are required if HEIs in the UK wish to enrol students from outside the European Economic Area (EEA).
already directly link to the level of funding received for research, the implications of these two measures on the business of running a university cannot be underestimated. The need for them to be complementary rather than in conflict has never been more important.

**The research–teaching nexus**

Notwithstanding our recognition of the continuing perceptual and real separation of research and teaching, a positive legacy of funding streams such as the TQEF and the TLRP was a focused consideration of the relationship between teaching and research. Ideas around this relationship, that might have otherwise remained internal conversations within the educational development community, were openly debated, applied and critiqued. This bringing together or connecting of research and teaching strands of higher education activity is now commonly referred to as the ‘research–teaching nexus’, a term originally attributed to Neumann\(^\text{11}\) (1992, 1994). The concepts underpinning this nexus have been debated, developed and refined (see e.g. Brew, 2006) and have been more recently examined in relation to particular disciplinary activities (see e.g. Spronken-Smith & Walker, 2010), ontological and epistemological perspectives (see e.g. Robertson, 2007) and international settings (see e.g. Jusoha & Abidi, 2010).

One notable example of work in this area is a typology developed by Griffiths (2004) to explore what is meant by ‘linking teaching and research’. Griffith’s typology describes four main categories that illustrate different relationships between teaching and research:

- Teaching can be ‘research-led’ with curriculum structured around subject content directly based on the disciplinary interest of teaching staff. Here the emphasis tends to be on understanding research findings rather than research processes.
- Teaching can be ‘research-oriented’ with the curriculum placing as much emphasis on understanding the processes by which knowledge is produced, as on learning what knowledge is in a particular discipline.
- Teaching can be ‘research-based’ with the curriculum mainly designed around activities that are enquiry-led with students finding things out for themselves, alone or in groups.
- Teaching can be ‘research-informed’ with staff and students undertaking systematic enquiry into the teaching and learning process itself to achieve the best outcomes for students’ learning (Griffiths, 2004).

This latter category of ‘research-informed’ is informed by Boyer’s (1990) articulation of the ‘scholarship of teaching’ which describes the process by which

\(^{11}\)Interestingly Neumann talks about the ‘teaching-research nexus’; a subtle but different emphasis!
academics engage in broader debates about what makes for effective teaching and in understanding their own role in facilitating and engaging students in effective learning. Healey (2005) replaces the broader notion of ‘research-informed teaching’ with that of research-tutored, in an adapted version of the typology, thereby adding in a form of learning that is focused on students writing and discussing essays and papers. Healey captures the type of ‘nexus’ that results from each of these relationships along two axes, one of which shows a continuum from an emphasis on ‘research content’ to an emphasis on ‘research processes and problems’, and the other from approaches that are considered to be ‘student-focused’ to those that are ‘teacher-focused’ (see Figure 1.1). As Healey (2005) notes, many learning and teaching activities involve a mixture of these four approaches; the particular blend is very much dependent on the context in which teaching and learning take place.

It has been argued that the unidirectional relationship (i.e. from research to teaching) that all the quadrants of this model imply in fact does little to rebalance the relative status of research and teaching within academic communities (Cleaver, 2014 and 2015). Indeed, one recent article by Harland (2016) reverses the direction of travel, arguing the case for ‘teaching-led research’, where programmes of study directly and positively influence research activities. This notwithstanding, we introduce this typology here as it helps us to begin our exploration as to why educational enquiry is useful to us as a term. At the heart of the relationship between research and teaching, located in the top right-hand quadrant of Figure 1.1 (Research and Teaching which is ‘Research-based’) is the concept of learning that is led through enquiry. Further support for this comes

**Figure 1.1** Curriculum design and the research–teaching nexus (adapted from Healey, 2005)
from Barnett (2005), who notes that the conclusion of many writers (see Elton, 2005; Brew, 2001) is that teaching and research are more likely to be closely linked when both teaching and learning are ‘enquiry-led’ and ‘enquiry-based’. Indeed, citing the work of Brew and Boud (1995), Barnett argues that the common feature of both research and teaching ‘is that they are both acts of learning … in as much as learning can be a form of enquiry’ (2005: 100).

**Enquiry as the act of seeking**

Taking this line of argument forward, and drawing on the work of Rowland (2006), we find it useful to conceptualise enquiry as the act of ‘seeking’. This resonates well with the process of research with which many of us are familiar; that is, seeking out information through a process of structured or disciplined enquiry in order to address a particular research hypothesis, question or issue. The association between ‘seeking’ and teaching may not prove quite so apparent; particularly if the commonly held view of teaching in your institution or discipline can appear to prioritise the transmission of information and fact. Yet, if we recognise that ‘the most important task of the teacher is to develop an atmosphere or an attitude in which students seek, to build and understand knowledge’ (Rowland, 2006: 109 – our emphasis) then the connection becomes clearer. The ‘seeking’ described here is a process that supports students to learn, practise and apply the skills of higher-order thinking and critical enquiry which form the bedrock of academic work in higher education settings.

However, we fundamentally believe that the use of critical enquiry (or the act of ‘seeking’) should extend beyond being the mode (enquiry-based learning) or content (learning about enquiry approaches) of our teaching. It has the potential to transform our broader academic practice and it is to a discussion of such activities – *educational enquiry* in practice – that we now turn.

**Using our skills of enquiry to enhance our learning and teaching**

**Scholarship reconsidered?**

As we mentioned earlier, Boyer’s report, *Scholarship Reconsidered: Priorities of the Professoriate* (1990), called for equal standing and recognition to be given to the *scholarship of teaching* in a higher education sector that had become dominated by research agendas. Conceptualised in this way, teaching should not to be seen as a routine function, but as a process in which ‘[p]edagogical procedures must be carefully planned, continuously examined, and relate directly to the subject taught … good teaching means that faculty, as scholars, are also learners’ (pp. 24–5). Importantly, Boyer indicates that it is not just the level or type of teaching that we undertake in higher education that differentiates us from
other educators. It is the fact that as a group we can apply our skills of higher-
order thinking and critical enquiry to our own teaching design and practice: the
scholarship of teaching.

Taking these ideas forward, the Scholarship of Teaching and Learning (SoTL)
movement, broadly recognised as being introduced by Hutchings and Shulman
(1999), has grown in scope and influence over the last decade. Its basic tenet is
that, through employing our academic skills, we can move beyond the synthesis
of the latest thinking and practices within our disciplines or area of practice, to
actively enter into and lead debates about appropriate modes of teaching and
good practice in facilitating student learning. Key to this movement is an empha-
sis on making any work we do ‘community property’ (Shulman, 1993) so that we
can use and build on one another’s work in the same way as our research activi-
ties build and flourish in our academic communities.

While there is no one clear definition of the SoTL, and the methods and
approaches that it encompasses remain the focus of continuing debate
(Fanghanel et al., 2016), one exposition provides a useful staging post for this
discussion. Healey (2003) argues that SoTL should encompass and comprise
Boyer’s first three types of scholarship: the scholarship of discovery (original
and blue-skies research), the scholarship of integration (the synthesis of existing
research to create new and interesting understandings and applications) and the
scholarship of application (the use of evidence to change and improve practice
in real-life settings). This conceptualisation helps us to move forward in our quest
for an approach to the enhancement of teaching which draws upon academics’
existing skills-sets, rather than seeing the skills associated with disciplinary
teaching as discrete from those of disciplinary research.

However, it is worth pausing to note that ‘scholarship’, like SoTL, remains a
much debated, fluid and contested concept. While this is not problematic in itself,
Gill Nicholls (2005) makes clear the potential impact of a lack of common under-
standing in the conclusion to her book The Challenge of Scholarship.

To understand a term we need to know how it behaves in a wide range of circum-
stances. When we understand the term fully we can then use it to its full effect.
The problem that has been identified … is that there is no understanding of
scholarship … Without a clear meaning, explaining the actions of a scholar is impos-
ible. (Nicholls, 2005: 140)

We are therefore left with the understanding that scholarship (as a concept, and
an associated set of activities) may appear meaningless (and undervalued?), if it
is not fully understood and valued. A clear problem with the need for contextual-
ised understanding, as Nicholls (2005) rightly states, is that scholarship, in being
so defined, may be in danger of becoming a mere checklist, or too narrow in
definition. One notable example of this process in action, which we introduced
earlier in the chapter, is the way in which scholarship has become associated with
a narrowly defined set of academic outputs as part of the UK’s 2014 Research
Excellence Framework (REF):
the creation, development and maintenance of the intellectual infrastructure of subjects and disciplines, in forms such as dictionaries, scholarly editions, catalogues and contributions to major research databases. (REF, 2011: 71)

Furthermore, as discussed earlier, the very outputs of SoTL are often non-returnable to the REF. In the academic ‘prestige economy’ (Blackmore, 2016b) this has clear implications for which activities are likely to be supported in certain institutions.

With this in mind, we argue that the continuing lack of a common definition of ‘scholarship’ and the ensuing contextual definitions (significantly impacted on in the UK by REF and other policy outcomes) can act to undermine the value that SoTL activities are given in the UK sector. Our experience (and wider discussions in the sector) indicates that such activity continues to be valued in certain institutional settings only insofar as there is time to undertake it when other more valued duties are complete. Indeed, ‘the urgent need within the [academic] community to collectively reconsider the term “scholarship” and to take back control of the definition’ identified by Nicholls (2005: 7) appears to remain outstanding. One recent attempt at doing this, focusing on practice in research-intensive institutions, argues for the promotion and valuing of ‘strength-based scholarship’ that ensures that academics can make ‘an impact in their field … in a way which is appropriate for their particular context’ (Fung and Gordon, 2016: 42).

This notwithstanding, we sincerely hope that as TEF develops and moves forward in the UK, the impetus and rewards for engaging in such activities will grow; an area that we explore more fully in the final chapter of this text. However, in order to provide the foundations for this growth, and in light of the ongoing complications and contestations associated with the term scholarship (and particular SoTL) we propose alternative terminology that we believe can help take this agenda forward.

Defining educational enquiry

Earlier in the chapter we explored the links between the terms ‘enquiry’ and ‘seeking’ in relation to student learning, and, drawing on the work of Rowland (2006), considered the role of the teacher in developing an atmosphere in which students can seek information and create understanding through adopting an enquiry-based approach to learning. The discussion of SoTL highlights the importance of teachers in higher education adopting a similar approach in relation to their own practice. This, in turn, gives rise to the notion of educational enquiry which, for the purposes of this text, we define as:

a vehicle by which you, as an academic can seek to gather, analyse and produce information, through a process of structured or disciplined enquiry, to address a particular hypothesis, question or issue associated with your teaching and learning activities.
Adopting such an approach allows you to draw on and build evidence from which to reflect on, inform and enhance your teaching practice and, where relevant, to share with others through the normal channels of academic discussion and dissemination (blogs, podcasts, meetings, conferences, books and journal articles). Through knowing how to engage in the process of educational enquiry, you will further be equipped to provide evidence for, and to enter into and lead, debates about teaching and learning practices within your departments, faculties, disciplines and areas of practice. We also believe that this is key to defining what is ‘higher’ about the higher education we offer: ensuring that we are not only at the cutting edge of researching and defining what we teach, but also how and why we teach in the ways we do.

Are we all social scientists now?

As with any form of enquiry, you will need to have a set of skills, understandings and knowledge to move forward. For many academics in the UK, the skills of educational enquiry are first encountered and explored in programmes of study for new staff in higher education teaching (known variously as PGCerts in Learning and Teaching in Higher Education or Academic Practice). Yet, as indicated earlier in this chapter, such programmes (and other continuing professional development initiatives) often rest on the assumption that academics will study, assimilate and adopt a ‘social-scientific’ approach to undertaking educational enquiry. For those of you from almost any subject area other than education itself, it is highly probable that this will confront you with unfamiliar paradigms, language, research approaches and methods, and perhaps also may challenge your understandings of ‘validity’. Prosser et al. (2006) in a study of UK PGCerts, confirmed that the needs and approaches of different disciplines were not writ large in programmes at the time. Indeed, one of our chapter authors, Rebecca O’Loughlin, has identified that academics within her own discipline can experience difficulties in engaging with educational research ‘because of the differing research paradigms: empirical (educational research) and theoretical/discursive (theology and religious studies)’ (2008: 69). These arguments have been revisited more recently by Chick (2013), Grauerholz and Main (2013) and Poole (2013) in an edited volume *The Scholarship of Teaching and Learning in and across the Disciplines* (McKinney, 2013).

To put non-social-science academics at their ease, one of the key messages that educational developers regularly impart is that programme participants do not need to become ‘experts’ in education but simply to recognise and gain a basic understanding of the paradigms, approaches and methods used. This message however may go against the grain of everything that you have learnt so far in your career, where every qualification from your degree onwards has led further down the pathway of developing your expertise. To suddenly take a qualification in an area in which you are not expected to become ‘expert’ may leave you feeling
uneasy. Indeed, it could be argued that to suggest that such a qualification can be gained without an element of expertise somewhat undermines its value and may further compound some existing views of social science disciplines. From our own experience, the various circumstances described above may leave you and academic colleagues struggling to make connections between the requirements of a new and possibly alien field of study and any potential beneficial transfer to, and impact on, your teaching and your students’ learning in your own disciplinary context.

The importance of the discipline

How then can we best support you to engage with educational enquiry which is meaningful and helpful, and through which real advances in teaching and learning can be made? Our starting point is your own starting point: your discipline.

We recognise that like most academics working in HE the disciplinary context is where you are likely to have undergone most, if not all, of your formative education and learned the basics of your academic role: what you research and teach, as well as how you research and teach. Disciplinary starting points not only appeal at the personal level; they additionally chime with the important role of disciplinary communities in contesting, growing and expanding our knowledge and associated ‘ways of thinking and practising’ (Hounsell & Entwhistle, 2005) that emanate from disciplinary ‘epistemic cultures’\(^\text{12}\) (Knorr-Cetina, 1999).

In relation to teaching, a body of work on ‘signature pedagogies’ – a term first coined by Lee Shulman (2005; see also Chick et al., 2012; Gurung et al., 2009) – is helpful in providing key insights into the ways in which modes of teaching and learning can emanate from our disciplines, as much as our research methodologies and our disciplinary knowledge can (see also Cleaver & Wills, 2017). Other studies have considered how disciplines teach and develop ways of thinking and understanding (Donald, 2002; King et al., 2012; Meyer & Land, 2003; Pace & Middendorf, 2004) and ways of communicating and writing (Berkenkotter & Huckin, 1995; Elton, 2009). As such, there has been a recognition of the need to remain cognisant of our disciplinary contexts in all aspects of our teaching practice (Huber, 2006; Huber & Morreale, 2002a, 2002b; Kreber, 2009; McKinney, 2013; Potter, 2008).

Given the many disciplinary starting points, identities and cultures that you and your colleagues set out from, we agree with Shulman (2004) that education can be a truly broad field of study in which ‘the perspectives and procedures of many disciplines can be brought to bear’ (p. 279, cited in Potter, 2008). As Huber states (citing Grauerholz & Main, 2013) it is important to ‘free the scholarship of

\(^{12}\)The term epistemic describes the particular understandings and perceptions of what ‘knowledge’ is, how it is created and how it is best communicated within a particular disciplinary setting.
teaching and learning from inappropriate methodological expectations’ (Huber, 2013: xii). We believe that this will not only be of benefit for the disciplines in which academics sit, but will reap rewards for the field of education more broadly.

In inviting you to adopt this approach and to engage in *disciplinary approaches to educational enquiry* we encourage you to look beyond the boundaries of some of the current dominant methods in educational research and utilise your disciplinary knowledge, understandings and ways of thinking and practising to improve not just the content of your teaching, but also its approach, design and delivery. In doing this, we form part of a growing body of academics who challenge the popular contention that the static and dated nature of academic disciplines means they are unable to deal with ‘real world’ twenty-first-century problems. Ultimately, if we recognise disciplines as dynamic and infinite with fluid and porous boundaries, constantly redefining themselves through a process of continuous innovation in the pursuit of new knowledge (Repko, 2012) then, while they remain specialised and distinctive in many ways, they can also be understood as broad and ever changing. Moreover, they form interconnecting and interacting ‘nodes in a remarkably vibrant web of scholarship’ (Jacobs, 2013: 224). As academics who have engaged in work on the edges of a number of disciplines, we can personally testify to their porous, dynamic and constantly evolving nature. It is this recognition of the ability of disciplines to flex that provides us with the confidence to encourage you to employ and extend the enquiry methods of your discipline to enhance your learning and teaching.

Concluding thoughts

We hope this introductory chapter has inspired you to continue to read the rest of this text and to reflect on and develop ways to adapt and use your current disciplinary research expertise for the benefit of enhancing your own and colleagues’ learning and teaching practice. One caveat applies, however. Disciplinary modes of enquiry will, of course, have their limitations. Jacobs’s (2013) analogy of the ‘vibrant web of scholarship’ holds true here, and we encourage you to explore the opportunities that taking a disciplinary approach to education enquiry can afford, while recognising any inherent limitations. Through building a strong understanding of what your disciplinary approach can offer, in the context of the wider web of other disciplinary offerings, you will be in a strong position to enter into multi- or interdisciplinary educational enquiry either through the extension of your own enquiry skills and understandings, or through working with others from different disciplinary contexts.

As with any form of enquiry, a key starting point is a consideration of existing understandings and knowledge. Given that social science-based approaches and methods form the backbone of a significant proportion of existing enquiry into learning and teaching within HE, we begin the book with an accessible
introduction to these. Developing an understanding of social science approaches (even if you do not ‘practise’ them) means that not only will you be able to engage with and read existing literature in an informed way, but you will also be better able to identify the particular opportunities that your disciplinary approaches to enquiry can offer. To this end, Chapters 2 to 6 offer a brief introduction to social scientific approaches to, and methods for, undertaking enquiry into learning and teaching.

**Suggested further reading**

