Scholarship, publication, and career advancement in the health professions education
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In a recent AMEE Guide in Medical Education (McGaghie 2009), the author provides aspiring health professions educators with valuable insight into educational scholarship as well as offering practical advice in terms of the road to publication and career advancement as an educator. The tone of the guide is one of mentorship, with the author providing encouragement while making public the expectations of the quality expected in educational scholarship.

The discussion on publication is particularly helpful as the author provides peer review from the perspective of reviewers and editors. McGaghie realistically points out that publishing a journal article does not happen by chance. Even well established and seasoned researchers have articles rejected from time to time. This is the nature of peer-review. Editors, appointed because of their standing and experience in medical education, will invariably screen submissions before selecting appropriate reviewers who they consider experts in particular fields (Eva, 2009). The responsibility of reviewers is to rigorously ensure that submissions meet the standards of scholarship. Many of us, however, take reviewers’ comments personally and consider criticism and rejection as failure. Hard as “Major Revision” or “Reject” may be, this is an opportunity to reflect, learn and improve the manuscript content or style or perhaps rethink the research focus.

A recent editorial by Eva and Lingard (2008) in Medical Education openly advertises that the journal strives to avoid “inertia” or “statis” in medical education research when researchers merely report on studies that have only local and immediate relevance rather than addressing a broader educational issue or problem. Priority is thus given to studies that offer a strong conceptual framework, generating theoretical or applied knowledge within the field. In a recent review of experimental studies published in medical education, fewer than 45% contained a critical review of the literature and only 55% reported a conceptual framework (Cook et al., 2007). Eva and Lingard (2008) are of the opinion that studies with conceptual frameworks “reflect higher-level ideas that assist readers to think anew about the challenges they face in their local contexts”. For those not familiar with conceptual frameworks, Bordage (2009) has provided explicit examples of how theories, models and evidence-based practices can guide and inform research. So, before submitting your article, consider the following questions: What is the current understanding in this field or area of study? What contribution does this study make to the understanding of this field/area? What theory, model or evidence have I used to guide or interpret this research? Do the results of this study raise new questions or suggestions for future research?

Rejection may, however, not always imply substandard work. Considering that most journals accept only 10-20% of submissions (McGaghie, 2009), articles are sometimes rejected because, for example, the journal has just published an issue or several articles addressing the topic or it is not within the scope of the journal. You may therefore have missed the proverbial boat by not selecting an appropriate journal or failing to check a
journal's recent issues. If your literature review was current, this situation would probably not have arisen. But, having your article rejected because the journal's guidelines were not followed or because you did not have it proof-read for language is inexcusable.

This AMEE guide also makes important points about the attributes of a scholar and scholarship, something not often addressed in the literature. The bottom line is that scholarship involves hard work, dedication and commitment. For scholarship involving teams, clearly collegial interpersonal relations will be paramount for optimal functioning. Although McGaghie does not mention "communities of practice" in the guide, his description of what constitutes a productive scholarly team would certainly qualify, in part, as such a community (Lave & Wenge, 1991).

It is, however, McGaghie's sections on scholarship and career advancement that warrant further discussion. In particular, Boyer's scholarships should be revisited (again!) since how they are perceived and applied within institutions may impact on career advancement. By now, most faculty working in the field of medical or health profession's education are aware of the seminal contributions of Boyer (1990) to legitimizing teaching as a scholarly pursuit in the academy – Boyer’s scholarship of teaching. In proposing four scholarships (discovery, application, integration, teaching), Boyer wished to eliminate the chasm that has come to exist between “research” and “teaching”. At least two explanations exist for traditional research being the “gold standard” for appointment, promotion and tenure, a situation that sadly persists at many medical schools. The first explanation relates to an unintentional consequence of the famous 1910 Flexner report, in which it was advocated that to improve the quality of education at North American medical schools, medical studies should be underpinned by a firm grounding in biomedical sciences, supplemented by hands-on clinical training in which clinicians would undertake research stimulated by questions arising during clinical practice and would teach the students to follow suit (Cooke et al., 2006). This report resulted in the closure of a number of medical schools, while the remaining majority underwent Flexnerian remodelling.

The second explanation for the preoccupation with research as the priority of the professoriate has been attributed to World War II and the post-war period. The fruits (albeit destructive) of scientific collaboration had culminated in the atomic bomb, while the post-war emergence of the Soviet Union in space exploration galvanized scientists and politicians into research action (Beattie, 2000). And so, with accolades for biomedical or clinical research being the yardstick by which success in the academy came to be judged, teaching, once the main focus of the university, was demoted to a “Cinderella” activity. Teaching was something every academic was expected to do, irrespective of whether they were good at it or not.

In an attempt to reflect the many different activities of academics and to give each due credit, Boyer (1990) described these four scholarships. Although suggesting some overlap, Boyer largely perceived these scholarships as separate entities, with the scholarship of discovery representing traditional research and the scholarship of teaching at the other extreme. This discrete view of the four scholarships is reflected in articles addressing the individual scholarships in the September 2000 issue of Academic Medicine. The scholarship of application was described as "the translation of fundamental knowledge to practical applications to help solve problems of individuals and of society" (Shapiro & Coleman, 2000), while Dauphinée & Martin (2000) documented their thoughts on the scholarship of integration, describing how disciplines should collaborate to advance clinical research for the benefit of society. Glassick (2000) reiterated the elusiveness of defining the scholarship of teaching.

Others have, however, recognised the inter-relatedness of Boyer's scholarships. To this end, Schneeweiss and colleagues (1997), in trying to rationalize a framework for evaluating and
recognising clinician-educators, suggested that the scholarships of teaching, application and integration should collectively represent a “scholarship of synthesis”. They viewed a teaching intervention (e.g. bedside teaching or mentoring) as a carefully designed activity, with objectives and methods that could be evaluated, much like a research project. The outcomes were, however, different. For teaching, “the end result is not a change in the external realms measured by the experiment, but is a change measured in the mind or behaviour of the student” (Schneeweiss et al., 1997), which they had difficulty measuring. Around the same time, Glassick and colleagues (1997) identified six relatively objective criteria (e.g. clear goals, adequate preparation, reflective critique) for judging scholarship, which could be and have been applied to the major academic activities. Considerable advancement has been made in measuring educational outcomes in the past decade of so, with evaluation tools being developed and refined. The portfolio which is being used by students and educators (Thistlewaite, 2006; Buckley et al., 2009; Tochel et al., 2009) is an excellent example of how evidence of educational outcomes can become public and available for judging scholarship. Sophisticated portfolio analysis tools are emerging such as the one described by Chandran and colleagues (2009) for educator portfolios which incorporates both quantitative and qualitative components, multiple source evaluation (including learners’) and Glassick et al.’s (1997) criteria.

Fincher and Work (2006) recently revisited the inter-relatedness of Boyer’s scholarships, presenting an integrated conception of teaching scholarship incorporating the other scholarships (Figure 1). They proposed, and correctly so, that scholarly teaching is an extension of teaching. To be scholarly, one needs to be informed about one’s practice, gather data relating to one’s teaching and develop resources with the view to improving learning. Only when the “product” is subjected to public scrutiny through, for example, peer-reviewed publications or committee submission, would this constitute scholarship of teaching. In the Fincher and Work (2006) model, the scholarship of teaching may involve the scholarships of application and integration.

![Figure 1. Fincher and Work (2006): scholarship of learning pyramid.](image)

While Fincher and Work (2006) have provided an excellent model integrating Boyer’s scholarships to better conceptualize teaching, it may be more meaningful to view the scholarship of teaching (probably more appropriately, educational scholarship) as encompassing the scholarships of discovery, integration and application (Figure 2). Thus, one must first undertake educational research or develop a curriculum or policy or create an electronic resource (scholarship of discovery) and then apply this to teaching and learning or the community, which may involve integration across disciplines. But, it is only when one subjects these achievements (and sometimes the results of evaluation) to peer scrutiny (e.g. conference presentation or submission of a policy to a relevant committee or a peer-reviewed educational product on MedEdPORTAL) that the work can be declared “teaching scholarship”. For Hutchings and Shulman (1999) “the scholarship of teaching is the mechanism which advances the profession of teaching itself”.

![Figure 2.](image)
In conceptualizing Boyer’s scholarships as inter-related, the scholarship of discovery (i.e. research involving evidence-gathering, analysis and measureable outcomes) in teaching and learning is then no different from that of biomedical science or clinical research. Research in education subscribes to the same rigorous principles of science or clinical research, which can be evaluated using Glassick and colleagues’ (1997) criteria. To this end, medical education researchers must still generate research questions or hypotheses and have conceptual frameworks to guide or interpret their research. Their methodology must be defensible and the results need to be analysed, often with the same statistical tools used in other forms of research. It is thus possible then to compare the scholarship of the so-called traditional research and the scholarship of teaching.

But, the life of an academic has become even more complex than teaching and research. To the list of responsibilities have been added clinical, college and university service (Bligh & Brice, 2009) and for some, community service and social responsibility are important scholarly activities (Boelen, 2004). For Bligh and Brice (2009), scholarly management is a third priority of the professoriate.

Recognising the needs to legitimise and reward the various activities of the academy, Boyer’s original scholarships can be integrated into a new set of scholarships, the scholarships of research, education, service (e.g. management, clinical service) and for institutions where it is important, community development. Glassick and colleagues’ (1997) criteria can then be applied across these major areas of responsibility, allowing direct comparison and the emergence of description such as clinician-educator and clinician-researcher, depending on an academic’s main areas of activity. It should therefore be possible to identify an academic’s contributions to clinical service, research, teaching and community development, identifying objective criteria to define levels of expertise or contributions, either for promotion or for professional development. For example, representation on a decision-making body (could be clinical, educational or administration) may be at three levels. Level 1 may be at the department of university level, Level 2 may reflect national involvement, while Level 3 could reflect contributions at an international level. In such a system, scholarship in education, traditional research, administration, patient care (service) and community service all become comparable, involving elements of Boyer’s original scholarships. Rewarding each area of scholarship equitably becomes possible.
In AMEE Guide No. 43, McGaghie’s first piece of advice for career progression in the health care professions is “Know the local rules”. You must have a clear understanding of the criteria used in your institution for professional advancement. A career as a health sciences educator may require considerable planning and negotiation if your institution does not value educational scholarship in the same manner as traditional clinical or biomedical research. Prepare to take up the challenge and become a change agent, pioneering a new career path for those who follow in your footsteps.

References


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**Notes on contributor**

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