

The Value of Learning, Researching and Publishing in Medical Education

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The skills required of a doctor are multiple, extending across several domains of performance: diagnostic thinking, organisation and management skills, communicating through verbal means with patients and other health care workers, writing, and a variety of psychomotor skills. These skills build on knowledge, and also require personal characteristics. Entry criteria for medical schools ensure a certain level of intelligence and knowledge, but are less able to distinguish other capabilities. The education process must not only increase knowledge but all these other characteristics. Assessment must measure all of them, to the extent possible, to encourage students to learn more than just the facts, and ensure that graduates are capable of developing into good doctors. This is emphasised by Ruedy in his review of assessment methods.¹

The skills required of medical educators are even greater. The first is excellence in their field of practice, then to demonstrate understanding of research in their field. Subsequently, they must add capabilities in teaching, assessment, organization of course, and to reach the highest level, high order management skills.² For many, education comes as an afterthought, following a career in clinical practice, often with administration. Little wonder that all of us fail in at least some of these fields. Yet we can keep learning at any age, and we must: we must not unthinkingly replicate the type of education that we received. Fortunately help is available: either from personal mentors, or from books and journals. For every skill worth learning, including educational skills, someone has written a book that teaches how to do it better.

Despite most faculty members of medical schools spending most of our professional lives on educational activities, and only a small proportion on research, the educational component has much lower status than research.^{2,3} Sadly, when thinking of research, most think of bench research first, then clinical research, but few faculty members think about doing research on their educational activities. This is surprising, since we have much larger sample sizes, and more control over student

subjects, interventions, and measurements than we ever can over patients. The nature of the teacher-student relationship and the faculty organization provide constraints over educational research, but these are not insurmountable. Randomised trials are possible only occasionally, but much can be learned by development of programs, good measurement instruments, and through careful evaluations using quasi-experimental designs.⁴ Social science methods can help us greatly, including qualitative interviews to assist understanding of the complex process of students' reactions to their educational milieu.⁵ These methods can be intimidating, and need to be undertaken properly, though are eminently learnable.

Recent discussions in the Medical Journal of Australia^{6,7} show how little is known about the process of selection into medical schools, and predictive factors for success. The few good studies that have been performed need replication in different contexts, including Malaysia. The education program at IMU provides many opportunities for worthwhile and interesting research, as shown by the evaluation of skills learning in this issue.⁸

One of the greatest problems for researchers in Asia is the difficulty of publishing in basic science and clinical research journals, most of which are based in North America and Europe. There is huge funding and infrastructure available to researchers in those countries, while their editors and referees have little interest in work done elsewhere. The great advantage for researching the education field is that none is well funded, so we are all on more equal footing. The external validity of research is always an issue: for example, the clinical clerkship phase in North American schools is different from most of those based on the British system. When we read articles from each tradition, we must be aware of the differing levels of participation of students in the treatment process, and therefore the different learning that occurs. The education and health care systems in Malaysia have their own features that make any medical education

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work here different from elsewhere. Nonetheless, careful design can illustrate general principles. The unique feature of IMU is the crossover of students from Malaysia to other medical schools around the world: from both traditions. This makes the possibility of outcome studies particularly tantalising.

The great advantage of on-line journals over conventional publishing is that there is no need for subscriptions and paper copies collected in an available library or archive. Online journals are available from home or work almost anywhere in the world, thus papers published in this journal can be found by internet searches, and become known to all. I hope that this journal can succeed in overcoming the barriers faced by all new journals in becoming widely known and accepted as a good site for publication of papers in all fields, especially medical education. Doing and publishing research in medical education will improve

the quality of education provided, support academic development, and increase the stature and success of the university.

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