

Introduction to the Teaching of the Anatomical Sciences

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In 2003, a group of anatomists from across Europe who were enthusiastic about learning and teaching in anatomy and learning and teaching more generally and about undertaking research into learning and teaching in anatomy met in Paris to form a group to discuss matters of mutual interest in anatomy education, share good practice in anatomy education and collaborate in learning and teaching projects. This group, subsequently named the Trans-European Pedagogic Anatomical Research Group (TEPARG), has had the full support of the European Federation for Experimental Morphology (EFEM) and has met usually twice a year since its inception. In addition to holding colloquia, TEPARG has conducted research collaboratively and has published articles collectively in relevant anatomical journals. In 2011, in Cardiff, TEPARG played a significant part in a major symposium on Anatomical Education organised by the Anatomical Society, British Association of Clinical Anatomists and the Institute of Anatomical Sciences with papers subsequently appearing as a symposium issue in the *Journal of Anatomy* the forum appropriate for the major organizing committee, The Anatomical Society. Now, TEPARG is set on its next major venture, the production of a book on the teaching of the anatomical sciences and this project is to be undertaken by serial publication of chapters in the *European Journal of Anatomy* (EJA) – a suitable vehicle we deem for publication from our European group.

Serialisation of books was common in the late

19th and early 20th centuries. Indeed, most of Charles Dickens' novels were serialized and so were the works of James Joyce. We believe that serialization of our book on anatomical learning and teaching is the best way forward, although we would not claim that our literary skills are up to those of a Dickens or a Joyce! We envisage that two chapters will be published in each of the next 8 issues of the EJA. Eventually, once all the chapters have been published in the journal, they will be brought together to form a special issue available for wider distribution amongst the anatomical and educational communities.

It is legitimate to ask why does the anatomical community need a book on the teaching of the anatomical sciences at this point. Are there already not books available and are there not many journals that publish reviews and original articles on anatomical education? In reality there are very few books published on anatomical education and indeed in subject-specific areas in higher education generally. The Anatomical Sciences Education Journal is foremost in publishing articles on learning and teaching in anatomy along with a number of other Journals that publish such articles as part of their wider remit. In our view, our book is needed at this time because of the situation that anatomy finds itself worldwide. It is often stated, overstated too often, that anatomy is in crisis. While we would not articulate that view ourselves we are in no doubt that anatomical research does not always command the respect it should, the teaching of anatomy is being reduced in terms of both time and content, new methods of teaching is being introduced (sometimes at the expense of dissection and even of the use of cadavers), anatomists (either with clinical and/or scientific qualifications) with mastery of their subject are getting harder to find, and staff without relevant qualifications are

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reluctant to invest the time necessary to master a subject can appear straightforward on the surface but where it quickly becomes apparent that it requires significant effort for a fuller understanding. At the same time integrated approaches in healthcare studies can lead to anatomy being seen as an insignificant part of a PBL or case-based learning exercise. Integrated approaches frequently emphasise context-dependent and work-related knowledge with a reduced emphasis on subject-specific knowledge. We would argue that it is important to equip students with context-independent knowledge and theoretical knowledge in anatomy, as well as other scientific subjects if they are to learn the rules of knowledge in order better to be able to deal with unfamiliar situations or generate new knowledge.

We are confident that we are all, as anatomists fully aware of the dangers to our discipline. We are equally sure that anatomists, always enthusiastic about their subject, are up to the task of combating the most virulent of criticisms and finding ways of accommodating the most reasonable of changes. Nevertheless, to do this, anatomists must be armed with reasonable evidence-based and theoretical arguments founded upon competent research and analysis. To argue otherwise is to risk the accusation of being subject biased and resistant to change in the face of educational advances. This book provides anatomists, and other medical educationalists, with material to elaborate upon the debates presently going on in all areas of healthcare studies.

The book will NOT be primarily a how to teach manual for there are plenty of articles on such topics. Yes, practical matters are dealt with to inform and explain teaching practice but our main aim is to present a series of discursive commentaries that stimulate debate, indeed occasionally (and purposely) courting controversy. We consider that one strength of the book we are about to produce is that it draws on a wide range of opinion from across the anatomical community in Europe. Nonetheless, debate is still needed in our view since we have a distinct impression that either argument can fall on deaf ears or matters that affect the teaching of the anatomical sciences are being "resolved" without adequate discourse. To the

reader, we implore you to get involved, marshal your arguments and be prepared to think laterally. If this book provides you with ways and means of doing these things and perhaps a deeper understanding of why some strategies are more likely to work than others, then we will have succeeded in our purpose.

So, what is anatomy for the purposes of this book? The very word, being derived from the Greek and Latin means "to cut up", implies what these days is termed gross or topographical anatomy. However, contemporary anatomy covers all aspects of the morphological sciences in human biology, including histology, embryology and neuroanatomy. Furthermore, anatomy is frequently thought of in terms of the medical course but many healthcare disciplines have a requirement for aspects of the anatomical sciences and require anatomy courses of considerable detail as part of the education of safe and competent practitioners in their relevant professions. We are not being facetious in wishing that we never get to the stage where a medical student knows less anatomy than a layperson first-aider but it is often the case that medical students know less anatomy in many areas when compared to students of dentistry, physiotherapy or speech sciences to give three examples! In this book we do have much to say about gross anatomy and medical education, but not exclusively so. The chapters that are commissioned from members of TEPARG are listed below. We appreciate that they will be of varying length, depending of course on the need to develop or elaborate the themes presented. For those chapters that are short, there is virtue in brevity! For those that are long, there is virtue in being discursive! It is our fervent hope that readers, whether anatomists or otherwise, will find much in the book to feed upon (even rant upon) and we encourage them to write to us so that we can have a dialectical process whereby the theses we have presented are met by cogent antitheses so that a reasonable synthesis may be obtained. On this basis, we envisage ultimately that with the publication of the book, the antitheses will also be published so that we have produced "head-to-head" discussions that will add to the value of the book as well as diminished author bias.

What we can look forward to in the series of articles:

- Chapter 1 Introduction to the Teaching of the Anatomical Sciences (*BJ Moxham & S McHanwell*)
- Chapter 2 History of the Teaching of Gross Anatomy – How we got to where we are! (*BJ Moxham & O Plaisant*)
- Chapter 3 Philosophy and Ethics of Anatomy Teaching (*E Brenner & D Pais*)
- Chapter 4 Anatomy, Respect for the Body and Body Donation (*BM Riederer & JL Bueno-Lopez*)
- Chapter 5 Designing Courses in Anatomy (*I Stabile*)
- Chapter 6 Learning Anatomy (*C Smith, S McHanwell & G Finn*)
- Chapter 7 Practical Teaching for Preclinical Anatomy (*BM Riederer, R Ayer, JL Bueno-López & C Reblet*)
- Chapter 8 Assessment in Anatomy (*E Brenner, A Chirculescu, C Reblet & C Smith*)
- Chapter 9 Specialised Teaching of Human Development (*E-N Emmanouil-Nikoloussi, BJ Moxham, A Chirculescu & H Brichova*)
- Chapter 10 Specialised Teaching of Neuroanatomy (*D Pais, O Plaisant, E Sendemir & BJ Moxham*)
- Chapter 11 Research-led Teaching (*E Brenner & S McHanwell*)
- Chapter 12 Clinically-oriented Anatomy (*BM Riederer, JP Spinosa, R De Caro, V Macchi, A Porzionato, S McHanwell & BJ Moxham*)
- Chapter 13 The Teaching of Anatomy to Postgraduates (*J Sanudo & R De Caro*)
- Chapter 14 Pedagogic Research in the Anatomical Sciences (*C Smith, S McHanwell, & G Finn*)
- Chapter 15 Anatomical Terminology and Its Importance (*P Sprumont, A Chirculescu & O Plaisant*)
- Chapter 16 What's Best for the Teaching of Anatomy (*BJ Moxham & S McHanwell*)

