

on personal experience and gives details of the benefits to both sides in the collaboration. The next chapter on changing topics and trends in introductory statistics describes differences noted by the author over his long career in terms of content taught in introductory courses. Although well written, I expect for new academics what will be of more interest is the closing predictions of what will happen in the future. The third chapter in this section deals with the task of creating a syllabus for statistics and research methods courses. This chapter is full of good, common-sense advice. The final chapter in the section is on assessing students' research ideas and, although an enjoyable read, is aimed primarily at psychologists and the types of project work their students will do.

'Approaches to teaching statistics' begins with a chapter on designing effective examples and problems for teaching statistics. This chapter is more research focused, in that the author gives evidence from his own research on how to use examples appropriately, in particular, distinguishing different types of examples and questions and showing that strategy examples and reflection-type questions work well. The second chapter of the section describes designing an online introductory statistics course. Here, discussion is on replacing a standard course with an online course rather than incorporation of online material in a standard course and describes personal experience of doing this in practice. The final chapter in the section is on enhancing undergraduate statistics instruction. This is one of my favourite chapters in the book as it gives a personal perspective of designing statistics courses and will be useful for readers in a similar position.

'Emerging approaches to teaching research methods' begins with a chapter on hands-on labs in content area methods courses. This describes the group of authors' experience of running labs in various psychology areas in their college. This is followed by a chapter on innovative approaches to teaching statistics and research methods. This chapter describes several innovative methods — just-in-time teaching, inter-teaching and learning communities which the authors have incorporated into their teaching. The third chapter is a fairly specific chapter on teaching ethics in research methods classes. The chapter is well written and briefly mentions teaching the ethics of using animals in research. The final chapter in this section is the rather ambitiously titled 'Upper division research methods — from idea to print in a semester'. Here, the authors describe how one might run a course that brings students on from finding a research idea to writing a paper in one semester.

'Integrative approaches to teaching methods and statistics' attempts to combine the two previously considered fields of statistics and research methods together. It begins with a chapter on the benefits and detriments of integrating statistics and research methods. Here, the authors give many reasons why the integration of the two subjects might be both useful and problematic. Next, there is a chapter on integrating computer applications in statistics and research methods. This is a nice chapter with several examples of how the authors have integrated computer application in

their own courses. The final chapter in the section describes giving students professional opportunities in research. This chapter describes several topics, including student conferences, methods to maximise students' research experience and publishing opportunities for undergraduate students.

The book ends with a section entitled 'Special topics' which consists of two chapters on incorporating diversity in research methods courses and teaching writing in statistics and research methods courses. These are two important topics and are well described and finish the book nicely.

To sum up, this is an interesting book, although its relevance to the readers of *Animal Welfare* is limited given its focus on psychology rather than the behavioural sciences, generally. The chapters vary in both relevance and quality but there should be something for all readers.

William J Browne

University of Bristol, UK

Handbook of Veterinary Clinical Research

M Holmes and P Cockroft (2008). Published by Wiley-Blackwell Publishing, 9600 Garsington Road, Oxford, OX4 2DQ, UK. 236 pp Paperback (ISBN 978-1-4051-4551-0). Price £29.99.

This engaging book has the fantastically admirable intention of encouraging and assisting the "vast untapped potential of veterinary practitioners" to perform clinical research in clinical settings. In recent years, editors of health-centred veterinary journals have consistently appealed for more non-academic research. Since most veterinary work is done 'on the ground', where most of the potential target populations for research and application are seen, it seems beneficial for research to be conducted there. But many practitioners are nervous or shy about the idea of starting such research or unsure how to find out more. The few books that cover the whole topic of conducting research are usually tomes — as the authors, who are two highly-experienced researchers, assert, "many of us are daunted by long technical documents". Their caveat for this statement was that "we all tend to read the first page" so, imagining I was a nervous, shy and daunted practitioner, I read the first page of *Handbook of Veterinary Clinical Research*. It was so un-daunting that it made me read the second, third and two-hundred and seventeenth.

On that first page was a statement that clinical research "has a direct impact on the welfare of animals under our care". This made me optimistic that the rest of the book might contain much to review for readers of this journal. But while there was a lot to like, there were not many references to welfare in the rest of the book. Most of the examples, which were well-used by the authors to demonstrate points, were primarily health-related (and it was unfortunate to read in 2008, within an otherwise excellent chapter (16) dealing with legal issues under A(SP)A and the ethics of informed consent, that animals in the UK are protected by the Protection of Animals Act 1911). Nevertheless, this book could be as appropriate for veterinarians conducting clinical

research into animal welfare as I would expect it to be for those conducting research into health or productivity.

Are there such veterinarians? In theory, each and every veterinarian conducting clinical research should be concerned with animal welfare. The much-flaunted but rarely considered oath of newly-qualifying members of the Royal College of Veterinary Surgeons includes a promise to ensure animal welfare. Many vets are vets in the first place in order to help animals and most owners obviously use vets to improve their animal's welfare. Established clinical veterinary researchers may do well to follow the model of human medical research into quality of life assessments.

But what of those non-academics at whom this book is aimed? Perhaps a similar appeal should be made for more welfare research to be undertaken by practicing veterinarians. Perhaps using welfare issues might even encourage the new generation of welfare-concerned vets to conduct 'on the ground' clinical research. Such studies, especially those using physical or behavioural parameters, may be relatively inexpensive for the practitioner not practiced in grant applications (though chapter 14 gives advice on this). They would also be studies unlikely to cause harm to patients which is one important, welfare-relevant issue that the book discusses within an ethical section. It should also be pertinent to veterinary students hoping to study under grants from UFAW or the BVA AWF.

And, after reading this book, such vets should feel more confident in designing and conducting clinical welfare research. The chapters on choosing sample populations (3 and 6), types of study (7, 8, 9, 10 and 11) and data (4, 5 and 13) should provide a useful introduction of relevant aspects to a beginner. I would expect a reader to be able to at least begin planning projects (chapter 12) and generating hypotheses (chapter 2).

No prospective veterinary clinical researchers should be daunted by this document. With its accessible and interesting style, it is not technical. Indeed, in parts it nears being chatty. With only two-hundred and seventeen pages of text, it is not long. Indeed, it is a short book to cover such a range of the aspects of clinical research plus further reading and end-of-chapter MCQs. But it is all the better for such a non-technical and brief approach. To put further detail in the book would have sacrificed its accessible and straightforward style. It can only claim to be an introductory book, and the authors frequently recommend further reading or collaboration with an experienced academic. Such collaboration will surely be a good thing for clinical research — and for animal welfare.

JW Yeates

Myrtle Cottage, Langford, UK

Raptors in Captivity: Guidelines for Care and Management

Lori Arent (2007). Published by Hancock House Publishers Ltd, 1431 Harrison Avenue, Blaine, WA 98230-5005, USA. 304 pp Paperback (ISBN 978-0-88839-613-6). Price US\$49.95.

Raptors in Captivity: Guidelines for Care and Management is the new edition of a spiral-bound, self-published book produced back in 1996 by Lori Arent and Mark Martell of The Raptor Center, College of Veterinary Medicine, University of Minnesota. Despite its humble beginnings, the book represented, nonetheless, the knowledge and experience gained by the authors over years maintaining raptors in captivity. The book became an instant success as it was the only authoritative source for such information at the time. Since then, the book has been adopted by hundreds of rescue and rehabilitation centres around the world, and even the US Department of Fish and Wildlife Services, as the guideline for the care and management of raptors maintained in captivity used for training and educational programmes.

Lori Arent is the sole author of this largely expanded and updated new edition which contains 10 chapters and 5 appendices. Chapter 1 deals with the legislation pertinent to the keeping and maintaining of raptors in captivity under Federal and State Government laws in the United States. In this chapter, the author highlights the responsibilities of reporting and record-keeping acquired in conjunction with the license to keeping raptors in captivity. This information is certainly relevant for those living and working in the United States, however, similar laws and legislation are also available in most countries around the world. Therefore, the reader is strongly advised to check the requirements with the local wildlife authorities in order to comply with the law.

Chapter 2 is concerned with the selection of birds to be used for educational programmes. There is a short section reminding readers about legislation governing the keeping of birds in captivity. Next, the chapter guides the reader through the necessary considerations concerning the type of display, management issues and characteristics of the birds. The bulk of the chapter is, however, an account of the most commonly kept raptor species in the United States. Each species includes a short, biological description accompanied by good quality colour photographs to ease identification. Appropriately, the author includes notes on the skills required to handle each species, together with notes on husbandry and management.

The next 4 chapters address issues related to basic requirements of raptors under captive conditions, including diet, housing, equipment and general maintenance care. Great emphasis is placed on the fact that raptors are whole animal eaters and, as such, should be fed with a variety of whole animals. The use of pigeons as food items is quite rightly discouraged as freshly-killed pigeons are known to be directly responsible for the transmission of several viral diseases, including Newcastle disease and herpesvirus hepatitis and parasitic diseases such as trichomoniasis. At the end of chapter 3, there is a very useful table with recommended average daily feed types and amounts required per different species of raptor kept for educational and display purposes. Chapter 4 deals with the single issue of housing. This includes precise description of the ideal location for building aviaries, concerns about security, the structural characteristics of enclosures, furniture within the enclosures