

*Book Review***Practical Skills in Biology (3<sup>rd</sup> Edition)**

BY A M JONES, REED R, AND WEYERS J D B

*468pp, Pearson Education Ltd, Harlow, UK, 2003, ISBN 0-13-045141-X, £23.99*

Shuell's dictum that "it is what the student does that determines learning" has become something of a mantra in HE. The world-wide growth in wider participation in HE, almost invariably in the absence of a matching increase in resources, has led to increased mass 'teaching' with a corresponding reduction of practical work: in the 'good old days of University education' it was, surely the practicals that embedded the facts gleaned from lectures. No wonder that the apparent dichotomy of 'surface'/'deep' learning is of concern. It is also sobering and significant to consider how much the above mantra resembles the concept of 'time on task' of primary education and the motto 'no impression without expression' of FE. What does this tell us about current 'HE'?

So how can we, how do we, encourage students to 'do' rather than to 'consume'? I have found that this book is a formidable resource in this endeavour, having used the second edition of it since its publication (1998) with students in three Institutions of Higher Education at very different positions of the 'league tables'. In the current situation, the preparation of and by students for practicals, assignments and assessments -mostly at the last hour! - becomes essential. Students need an easily plundered source of good practice and instructions.

It is this that this book provides so well: the first and second editions differed largely in organization rather than content, resulting in a format of short chapters giving clear instructions on how to do things -skills indeed -together with an excellent index. This admirable format allowed students of limited experience in consulting 'normal' books to dive into the book, find what they need, and implement it.

In the short term, the students got what they wanted; to get the task or assignment done and to earn marks. Over a longer period, however, I have found that the students acquired what they needed, namely basic skills learnt in context and a confidence built on achieving their aims.

So how does the third edition measure up to the achievement of the second? On value for money at least as well: the price has increased, but so has the content -and weight, from 770g to 1200g. The latter change is not altogether welcome in that the previous edition was just about portable enough to be taken around with the student into practicals and on field trips. The increase in weight makes this less feasible.

Several of the line drawings of the second edition have been supplemented with photographs. Several new sections have been introduced. Best of all, each chapter comes with a shortlist of selected references for further study. This, I feel, has two advantages: first, the obvious one that a particularly interested student can dig further to develop his or her practice. Second students understand the importance of reading peer-reviewed publications and using them to transform practice rather than to copy. I know that students like and use this book. They have borrowed my own copy often enough. Indeed, no higher indication of the worth of this book can be given than to tell you that just after I received my copy of the third edition, one of my students stole my copy of the second edition.

I often use the book myself as well as direct students towards it. I have also found it to be a first port of reference for my colleagues when they ask me questions like "where can I find quick instructions on how to use a Gilson pipette" (far quicker and more contextual than telling them to go and find a manufacturer's leaflet) or "what is a stem-and-leaf diagram" (far more condensed than reading Tukey's monograph).

Students buy relatively few books, and sometimes one wonders just how much they use them once purchased. But if hard-pressed lecturers were to refer students to specific chapters in a book they themselves use and respect, then students quickly learn to use the book themselves and to take heed of the advice and encouragement transmitted. They should indeed be 'singing from the same hymn-sheet'.

**Reviewed by M Tully**

Leicester School of Pharmacy  
DMU Hawthorn Building  
The Gateway  
Leicester LE1 9BH

MTully@dmu.ac.uk