

Editorial: The Times They Are a-Changin’

We are now in a post-Browne, post Comprehensive Spending Review world and understandably university provision is under the microscope. Readers will no doubt have different viewpoints over the motivation, need and ramifications of these changes but what is not in doubt is we will face reductions in funding while at the same time greater expectations from our students. STEM subjects have been spared compared to many others and a personal, and genuine, view of my experiences of the Bioscience community is one of exceptional educators and researchers willing to engage with teaching far beyond the threshold levels of acceptability. We are creative and productive, capable of delivering a genuinely inspirational education, much of the time with minimal resources. Resilient and resistant, our collective ability to diversify and respond to educational challenges is apparent (not least from) the breadth of articles submitted to this journal. This edition’s roll call is no exception. Technology-based articles remain one of the most frequently downloaded and we are pleased to see further analysis of an ever-increasing mode of communication in McClean *et al.*’s article about text-messaging. Plagiarism detection is a necessary consequence of the ubiquitous and readily copied information at the finger tips of learners and Thompsett and Ahluwalia explore the realities of using a popular online tool in the prevention of plagiarism — ‘Turnitin’. Morris breaks open podcasts as a learning tool and sits neatly (like peas) with Croker *et al.*’s exploration of learning enhancement through video guides.

An article that generated a great deal of debate locally is Drea’s forthcoming first submission to *Bioscience Education* about the demise of ‘Botany’ as a programme in UK HEIs. The article points to a broader issue of skills needs/provision, which occurs in an economic climate that may favour larger programmes (generally perceived to be more efficient in delivery to large classes). The role and purpose of higher education comes into the spotlight, the extent to which provision should be influenced by the needs of UK plc and the dilemma of providing ‘unpopular’ yet economically vital subject areas. Linked with a botanical theme and threatened arts, the specific skill of plant identification is picked up by Burrows in an Antipodean view of image banks and associated interactive tests. Further international themes are built on by Varughese who explores the success of international students from diverse backgrounds.

Another area often under scrutiny is the costly and potentially risk-heavy delivery of field activities. A personal hobby-horse of mine is the need for its inclusion at all levels of education, and recent modifications to the national curriculum that influences the bioscientists of the future may say ‘do fieldwork’, however, the opportunities available to bypass this are often too attractive to miss for school teachers nationwide. Gamarra and colleagues offer further evidence of the benefits of this precious resource, a sentiment I wholeheartedly agree with. Efficiency and learner experiences of practical/fieldwork are continued with examples from Bedford *et al.*’s Data Retrieval Test based on field and laboratory notebooks, while Goulder and Scott highlight the usefulness of community resources for learning ‘in the field’. The role of postgraduate research-teaching benefits and processes are also considered by Downie.

So what of Bioscience Education? Well, to echo the words of former Editor of Bioscience Education Chris Willmott (Willmott 2004) it is ‘business as usual’. It is noteworthy that Chris wrote this during another transitional era, the inception of the Higher Education Academy. The eagle-eyed amongst you will have noted the change in Editor. It is a pleasure to thank Dr Steve Maw for his sterling work in managing the journal after the tragic death of Professor Ed Wood. I am grateful to all previous editors for their development of what is a thriving journal, but particularly to Steve who has nurtured the lion’s share of this particular volume and, with a team of specialists at the UK Centre for Bioscience, coached me into how it lives, breaths and propagates. I hope that Bioscientists continue to use this journal to share and debate

educational practices. This was always an intention of the journal — promoting educational practices for a wide audience underpinning valuable networks of professionals contributing in many to the interest and success of these subjects. It is worth reiterating that, appropriately, as authors you retain copyright of your materials.

To finish, I will re-saddle my hobby horse, but this time on a different theme and leave you with a thought regarding our instrument to measure how satisfied students are with their experiences — the National Student (Satisfaction) Survey. I have enjoyed working with and disseminating work started by the recently retired Dr Alan Fielding who applied his intuition and skills as an ecological modeller to the national datasets (Fielding *et al.*, 2010). This is another good example of a quantitative bioscientist bringing much to the educational research 'table'. This work has demonstrated several key aspects of this survey, which has impacted on the interpretation and nature of institutional responses to the (empirical) NSS outputs. Some key outcomes include:

- Subjects consistently differ in their overall satisfaction making simple comparisons of 'whole institutions' highly problematical (and throws a question over integrating NSS rankings into the 'calculation' of institution status for comparisons, for example in 'University Guides').
- Satisfaction with feedback may receive low scores compared to other questionnaire items, but this aspect of learning and teaching is one of the poorest predictors of a student's overall satisfaction. This is not to say feedback is not important, just that it does not predict the final score of satisfaction. This implies that improving feedback may not necessarily (directly) enhance the overall satisfaction scores of the learners and that resources to enhance this measure of overall satisfaction may be directed towards other areas of the curriculum. However, this general view exhibits subject differences with clear distinction between subjects in the Biosciences.
- The best predictors of satisfaction are associated with 'good teaching' and 'well organised/ managed' provision (with smooth running courses apparently highly valued).
- Many institutions are now 'sharpening' the NSS instrument by educating learners in what the questionnaire is asking (i.e. explaining what feedback is and the many methods by which it is provided).

The nature of what surveys such as the NSS offer is debatable. To those least impressed it is difficult to argue against the great deal of rich data both quantitative and qualitative now available to institutions to inform decision-making and with a growing history to explore change. It may not be so clear exactly what is changing — the student experience or the interaction with the instrument measuring it. There is growing evidence that institutions are 'listening' and responding to this driver leading to change (and genuine improvements) in many areas as a consequence of its existence. Interpretation is key, and this is where caution is needed. Multiple lines of evidence (including local quality assurance information) are needed to drive changes to systems of management of the learner experience, and should be tailored to the particular group of individuals in question. Evaluations of experiences are affected by so many factors, not least the baseline expectations of those completing the survey and their state of mind at the time they put pen to paper, or more likely cursor to online option. How such perceptions change when different financial systems take hold remains.

As we pursue quantitative and qualitative evidence from the national data, I would like to finish my first editorial for *Bioscience Education* with a call for comment from the readership. Any responses are appreciated (e.g. comments or letters to the Editor potentially for publications,

or any other communiqué) and these may add to current debate and research. This information will be valued and may take the lines of your general opinions on the National Student Survey and examples of how you are responding to the annual results.

References

Fielding, A.H., Dunleavy, P.J. and Langan, A.M. (2010). Interpreting the UK's National Student (Satisfaction) Survey data for science subjects. *Journal of Further and Higher Education*, **34**(3), 347–368

Willmott, C. (2004). Editorial. *Bioscience Education Journal*, 4-0 available at www.bioscience.heacademy.ac.uk/journal/vol4/beej-4-0.aspx (accessed 23rd December 2010).

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