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Nationally shared on-line curriculum resources for veterinary undergraduate learning and teaching in animal welfare and ethics

This presentation describes the development of a new nationally shared curriculum for teaching animal welfare and ethics to undergraduate veterinary students via an on-line portal (entitled One Welfare). Public concern about animal welfare and ethics is growing world-wide, and the veterinary curricula should reflect this concern. Veterinarians are in a strong position to contribute practically and rhetorically to this area. However, veterinarians often have different levels of knowledge of animal welfare science and different capacities to reflect upon the ethical dimensions of their actions. To address this disparity, educators in the field of animal welfare and ethics were assembled from all eight veterinary schools in Australia and New Zealand to identify means to fulfil educational requirements in these domains. A process of modified 'deliberative polling' identified three core learning and teaching strategies to be the focus of the new online teaching resource. These strategies are: (1) interactive scenario-based learning using Xerte Online Toolkits, which offer an authentic learning experience and support active learning; (2) a quality of life assessment tool that incorporates an online calculator to combine welfare scales from various domains that capture an animal's quality of life; and (3) a dynamic platform to discuss ethical dilemmas entitled 'Chatterbox' – based on a virtual classroom known as the Human Continuum Tool. Veterinarians, like many other health professionals, are expected to use a systematic approach based on scientific evidence and professional reasoning to improve patient (and client) outcomes i.e. they are expected to work within an evidence-based practice (EBP) framework. Hence, the new curriculum incorporates EBP, drawn from sound animal welfare science and ethics research, in every aspect of the program to produce entry-level clinicians who are competent to practice evidence-based medicine in this area.

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Catering for the masses

Background and initiative: We co-teach first year anatomy and physiology to 320 students studying 4 different programs. This large number of students has great diversity, both in backgrounds, and in learning styles. Catering for this diversity is one of our challenges. In order to address this we decided to replace traditional physiology practical classes with workshops comprising active teaching strategies such as role plays, simulations and case studies. The intention was to present materials in various formats to engage the different learning styles, and enhance student performance and retention. The activities were part of flipped classroom delivery and designed as the 'explain and elaborate' components of the 5E's framework. Methods and analysis: Students were asked to complete an anonymous questionnaire seeking their attitude to the learning activities. Students registered their responses using a four point Likert scale. Data from the questionnaires was analysed for differences in the frequency responses.

Evidence of effectiveness: Students studying Sport and Exercise Science were most likely to agree, while students studying Physiotherapy did not agree that the role plays were helpful. Students studying Sport and Exercise Science, and Occupational Therapy were equally most likely to agree that both the simulations and case studies helped with concepts, while students studying Physiotherapy and Speech Pathology were less likely to agree that the simulations were helpful. Academic performance increased across all cohorts by 23 percentage marks when comparing the equivalent on-course quiz results achieved in 2014 (traditional delivery) and 2015 (flipped delivery). Student retention was also improved with a reduction in subject failure rates from 30% of students enrolled in 2014 to 20% of students in 2015. In conclusion, students found the range of learning activities useful for learning the content in the physiology component of these subjects. The students performed better in on-course assessment and the retention rate was increased. Clearly, this has been a successful teaching strategy for increasing student engagement in these subjects and will be further developed and refined in coming years. Currently the second semester equivalent of this subject is being delivered with both the physiology and anatomy components 'flipped'. The findings reported here bode well for the outcomes of the second semester subject.