Integrating a model horse limb into the veterinary curriculum to improve student outcomes in a safe and interactive environment

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Abstract

The Bachelor of Veterinary Medicine (BVM) curriculum is highly academic, and also requires high-level practical technical skills to achieve the ‘Day One Competencies’ prescribed by the Australasian Veterinary Board Council. This serves as a model for outcomes-based education in veterinary training, of which teaching clinical skills appropriately is an essential part (2). Globally, veterinary institutions are increasingly relying on the use of mannequins and models to improve student learning outcomes, encourage students to act professionally and improve student confidence before moving on to live animals. The use of model in the veterinary curriculum also reduces the use of live animals and therefore improves animal welfare.

Horses are challenging animals to work with, especially for teaching purposes (3). A typical horse weights in excess of 500 kg, and horse are highly strung and startle easily which may lead to biting or kicking. These behaviours can lead to severe injury for the inexperienced student.

The proposed use of a model for foot care skills and integrated digital teaching with fulfill the following requirements:

• Interactive teaching and active learning
• Improved student skills and understanding in a safe environment
• Improved student safety by allowing training in a safe environment before practice on live animals
• Improve animal welfare by only exposing live animals to competent, trained students
• Integrated digital interface to allow for modern student learning and encourage engaged participation

The use of a digital interface will improve the student's learning experience by allowing them to review material when they need to, and is tailored to the technology-oriented millennial student. The use of a digital interface versus traditional hands on teaching will be validated and will reduce the need for the presence of an expert instructor during practice sessions.

The model will be integrated into a larger clinical skills teaching facility (under development) which allows student to access to models to practice outside of teaching time and encourages deliberate practice of key practical skills. ‘Deliberate practice’ is an essential pedagogical concept in the development of motor skills, requiring planning and reflection to reach a level of expertise (4).