

# **The twinning project between University of Peradeniya and Massey University, including the importance of involving other authorities**

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**Keywords:** development – veterinary – curriculum – pedagogy – extension – stakeholders.

## **Twinning partners**

New Zealand and Sri Lanka are island nations which share a Commonwealth heritage and which have long term trade, investment and education links. The University of Peradeniya (UP) is the only institution in Sri Lanka that educates veterinarians. The veterinary school was founded as a department of the Faculty of Medicine within the University of Ceylon in 1947, became a department within the Faculty of Agriculture of the University of Peradeniya in 1973 and became the Faculty of Veterinary Medicine and Animal Science (FVMAS) in 1980. Similarly, Massey University (MU) is the only institution in New Zealand that educates veterinarians: its Bachelor of Veterinary Science (BVSc) programme is based within the University's Institute of Veterinary Animal and Biomedical Sciences (IVABS). Its BVSc is accredited as meeting the standards of the American Veterinary Medical Association (AVMA), Royal College of Veterinary Surgeons (UK: RCVS) and the Australasian Veterinary Boards Council (AVBC). The BVSc programmes at both the University of Peradeniya and Massey University are undergraduate qualifications, in which the majority of entrants have just completed their secondary school education.

## **The twinning programme**

Under the auspices of a five year OIE VEE Twinning Project, FVMAS has initiated a 'ground-up' review of its veterinary curriculum and associated functions in conjunction with IVABS. This comprehensive programme of change is intended to have multiple positive outcomes including; producing graduates who are better trained to meet the needs of Sri Lankan society, facilitating the Faculty's role in local dairy extension and animal health programmes, positioning the FVMAS for taking a regional leadership position in the future, and leaving the Faculty well placed to progress towards international veterinary accreditation if it chooses to do so. The strong links developed by the partners will leave them well placed to collaborate together in the future.

The precursor to the curriculum review included a detailed data gathering process, which placed considerable focus upon establishing the baseline status of the BVSc programme. Stakeholder inputs were obtained from graduates, students, veterinarians (private and government) and livestock producers, through a combination of face to face interviews, workshops and electronic surveys. Information from these was documented in detailed internal project reports available to key faculty members of both MU and UP. These data, together with internal reviews of the BVSc programme by FVMAS faculty members were distilled into a Self-Evaluation Report (SER), using the rubrics of the AVBC for accreditation of Australasian veterinary schools as a template (1). IVABS faculty members then used this SER to undertake a gap analysis of the UP BVSc programme. Using these inputs, the OIE Graduate Competencies (2) and the principles of Harden et al (3) for reviewing medical curricula, a graduate profile has been developed as the basis for a new curriculum. The instructional approach will be student-centred, outcome-based and aligned with the graduate profile and day 1 competencies, according to current principles of best practice in tertiary education (4, 5, 6); and there will be concurrent development of the extension activities of FVMAS to increase the competence of veterinary graduates in agricultural extension. Key curricular developments include (i) introduction of a lecture-free final

year of clinical rosters (as required in the AVMA standard for Curriculum: 7); (ii) horizontal and vertical integration of courses between and within curriculum years; (iii) early introduction of courses in animal handling and farm production; (iv) introduction of case-based, experiential-learning courses through each year of the programme; and (v) development of a new programme stream in core professional skills (including social skills such as self-awareness, self-regulation and empathy (8), together with more 'veterinary-specific' skills of communication and clinical examination (9)) giving veterinary students an understanding of the critical aspects that affect interactions with clients and co-workers. These developments are to be accommodated in a veterinary undergraduate teaching programme that will be extended from four to five years.

### **Involvement of other authorities and stakeholders**

Key technical stakeholders from both government and industry have provided direct input in the design of the higher level curriculum content, by identifying important topics to strengthen the proposed curriculum. A key platform in obtaining this input was a one day workshop attended by a wide range of veterinarians representing a broad range of special interest groups. Because of the ever-present risk of over-inflated didactic content, the subsequently agreed curriculum was reviewed by IVABS experts to ensure the content was appropriate to pass to the next stage of teaching, aligned with the graduate profile and commensurate with the skills required of a Day 1 graduate (2, 10).

The ramifications of this redevelopment of the programme were far wider than the twinning partners first envisaged, extending well beyond the internal approval processes of UP. Indeed, in a change project of this size and complexity, it is essential that the full range of affected stakeholders are well consulted on the desired changes and to ensure they are supportive of the proposed changes and the resourcing implications of these changes. Opinion, consent and permission have had to be sought from the Veterinary Council of Sri Lanka, the government Department of Animal Production & Health (DAPH), University Grants Commission and Ministry of Higher Education and Ministry of Social Services, Welfare and Livestock Development. Partnership with commercial livestock enterprises, poultry industry, private and corporate veterinary practices and the DAPH has been sought to enable delivery of the extended clinical final year. Indeed, these activities have proved at least as critical to the outcome of the twinning programme as has the internal process of curriculum revision. Additional resources of personnel (i.e. more technical staff and more faculty (in that order of urgency)) and infrastructure (e.g. improved large animal clinical facilities and necropsy suite) will be required to successfully implement the proposed curriculum. These are being sought from the relevant Sri Lankan university funding agency the University Grants Commission (UGC), with support from the Minister of Higher Education.

The twinning project is funded by the New Zealand Aid Programme from the Ministry of Foreign Affairs and Trade (MFAT). Governance is provided by the partnering universities, the OIE delegates from New Zealand and Sri Lanka and the Chairman, National Livestock Development Board. The project manager is responsible to the Governance group through the IVABS Head who is also the chair of the governance group. The governance group met face to face for the first meeting and subsequently by regular teleconference calls.

### **Change management**

Perhaps the aspect of the twinning project that required the steepest learning from both partners was the need to engage with many of the classical precepts of change management. Thus, harnessing the factor of external pressure as a key driver for change, and using that to build motivational capability (11), has proved an important strategy, as has finding ways of circumventing some faculty members' reasons for resistance of change (12). Moreover, extrapolating from the medical literature, the combination of cultural dimensions that pertain in Sri Lanka (13) can be expected to have a willingness to implement an integrated veterinary undergraduate curriculum at the Faculty level, but with some individuals expressing varying degrees of uncertainty about the utility of the undertaking. This is indeed what the partners have found with some strong advocates of change and some reluctant contributors. Indeed, the very essence of the teacher-student relationship is changed as a curriculum moves from a teacher-centred focus to a student-centred focus:

change leaders need to take account of this challenge to the persona of teachers when proposing change and allow time for faculty to become familiar with the idea and the reality of what change looks like. This has been a source of difficulty in a time bound project mode approach to implementing curriculum change.

## References

1. Australian Veterinary Boards Council (2016). Accreditation standards. At: <https://avbc.asn.au/wp-content/uploads/documents/public/AVBCStandardsFeb2016.pdf> (accessed June 2016).
2. OIE (2013). OIE recommendations on the competencies of graduating veterinarians (Day 1 Graduates) to assure National Veterinary Services of quality. At: [http://www.oie.int/fileadmin/Home/eng/Support\\_to\\_OIE\\_Members/Vet\\_Edu\\_AHG/DAY\\_1/DAYONE-B-ang-vC.pdf](http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/Vet_Edu_AHG/DAY_1/DAYONE-B-ang-vC.pdf) (accessed June 2016).
3. Harden RM, Sowden S, Dunn WR. Educational strategies in curriculum development: The SPICES model. *Medical Education* 18:284-97, 1984
4. Knowles MS, Holton EF & Swanson RA (1998). *The adult learner*. Gulf Publishing, Houston.
5. Biggs J. (1999). *Teaching for quality learning at university*. Society for Research in Higher Education, Open University Press, Buckingham, UK
6. Ramsden, P. (1992). *Learning to teach in higher education*. Routledge, London, UK
7. American Veterinary Medical Association (2016). Accreditation Policies and Procedures. At: <https://www.avma.org/ProfessionalDevelopment/Education/Accreditation/Colleges/Pages/coe-pp-requirements-of-accredited-college.aspx> (accessed June 2016)
8. Goleman, D. (1996). Emotional intelligence. Why it can matter more than IQ. *Learning* 24, 49-50.
9. Lane, I.F. & Bogue, E.G. (2010). Faculty perspectives regarding the importance and place of nontechnical competencies in veterinary medical education at five North American colleges of veterinary medicine. *Journal of the American Veterinary Medical Association* 237, 53-64.
10. Royal College of Veterinary Surgeons (2014). Day One competences. At: <http://www.rcvs.org.uk/document-library/day-one-competences/> (accessed June 2016)
11. Jippes M, Driessen EW, Broers NJ, Majoor GD, Gijsselaers WH, and van der Vleuten CPM (2013). A Medical School's Organizational Readiness for Curriculum Change (MORC): Development and Validation of a Questionnaire. *Academic Medicine*, 88, 9:1346–1356
12. Bovey WH, Hede A, (2001). Resistance to organisational change: the role of defence mechanisms. *Journal of Managerial Psychology*, Vol. 16 Iss 7 pp. 534 – 548
13. Hofstede's cultural dimensions [https://geert-hofstede.com/sri\\_lanka.html](https://geert-hofstede.com/sri_lanka.html) (accessed June 2016)