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# Continuous Education: Lifelong Learning for Judgement and Knowledge

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- The nature of the veterinarians we want to be developing (which may have consequences for selection for veterinary school)
- Implications for us as educators in developing “Trajectories of Learning”, which bridge both undergraduate and postgraduate levels in a coherent, vertically integrated fashion.
- *“The significant problems we have cannot be solved at the same level of thinking with which we created them.” (Albert Einstein)*

# The Individual's Challenge, Profession's (Society's) Dilemma

- Pace of change proportional to human advances in knowledge (understanding?)
- Problems created by explosion in knowledge and technology
  - In 2006, 161 exabytes of digital data generated
  - Equivalent to 3 million times the information contained in all books ever written
  - Estimate by 2010, will have risen to 988 exabytes
- No-one can “know it all”, or even a fraction of “it”!

# The Seduction of Content

- Universities, historically, custodians and disseminators of knowledge
- Research valued for depth (not breadth) and “purity” (not application)
- Students rewarded for their ability to absorb content
- Such approaches to learning → superficiality, and replication in application, rather than adaptation and “creative relevance”

# Societal and Professional Needs

Veterinarians with:

- Essentially core, veterinary knowledge, organised into conceptual framework which will permit updating
- The ability to source information, from the large and growing body of knowledge on animal and human health and disease, assess its authority and identify its relevance (“just in time”, not “just in case”).
- The ability to think holistically, and integrate and extrapolate knowledge to new challenges associated with the global complex system that human beings have created.

... And, most essentially,

Veterinarians with:

- Good judgement, based on up-to-date and sound evidence base.
- The ability to communicate; to explain to and persuade society of the validity and reliability of the profession's solutions.

[Judgement is the “killer application” of the human brain  
*(Tulgan 2001)*]

# Needs in Undergraduate Curriculum / Education

- Regular debulking, to maintain up-to-date “core” knowledge
- Programmes in professional skills
- Provision of appropriate elective theory, research and clinical elements, which complete “day 1” skilling and act as bridge to postgraduate phase

# Needs in Undergraduate Curriculum / Education

- All aimed at “capability” (Stephenson and Weil 1992):

Creativity, team-working, self-directed learning, novel situation handling, deploying a relevant range of “competences”

- The management of learning, particularly content, and prevention of a superficial approach, not only important for understanding but also Continuing Education

|   | <b>Preference for simplicity</b> | <b>Intrinsic motivation</b> | <b>Social motivation?</b> | <b>Barriers to participation</b> |
|---|----------------------------------|-----------------------------|---------------------------|----------------------------------|
| <b>Preference for complexity – understanding / deep</b>       | -0.358**                         | 0.265**                     | 0.376**                   | -0.246**                         |
| <b>Preference for simplicity – memorisation / superficial</b> | -                                | -0.037                      | -0.187**                  | 0.293**                          |

\*\*Correlation significant at the 0.01 level

*Dale et al 2009*

# Current Situation and Needs in Postgraduate Education

- “Much more emphasis must be placed on post-DVM education programmes” (*Anon 1989*)
- Lifelong learning required in most European Countries and compulsory in about half (*Anon 2009*)

# Current Situation and Needs in Postgraduate Education

Traditional academic routes:

- MSc/PhD
- Habilitation

*High quality – outcomes assessed*

*Issues*

- *research*
- *depth, knowledge focused*
- *reach a relatively small percentage of veterinarians*

# Current Situation and Needs in Postgraduate Education

More professional academic routes:

- MSc Wild Animal Health, Tropical diseases, Control of Infectious Disease in Animals

Professional body/academic support:

- US Board exams; various national specialist clinical qualifications
- European College exams under EBVS

*High quality* - *outcomes assessed*  
- *broader, more clinical*

*Issue – reach a relatively small percentage of veterinarians*

# Current Situation and Needs in Postgraduate Education

Short courses – single days, 2-3 days, 1 week:

- Predominantly in didactic formats (most efficient ways of making money for commercial companies). *In medical education, the least effective form of CPD – often not directly relevant to individuals and little evidence of clinical behaviour change*
- Some workshops based on specialist clinical skill. *More effective in medical education*
- A few customised to an individual's practice requirements, including formative feedback. *Most effective of this type of CPD; does produce behaviour change*

*Advantages – reach many more veterinarians*

*Issue – tend to be inputs assessed by professional bodies*

# Current Situation and Needs in Postgraduate Education

At least one attempt at a “trajectory” by a statutory body:

- RCVS Professional Development Phase (PDP) – first year postgraduate, recording of clinical experience, self-assessment, overseen by clinical deans
- Articulates with modular Certificate in Advanced Veterinary Practice – professional skills, clinical key skills, and other more advanced clinical modules (advanced practitioner, but not specialist levels). Assessed by universities, and can involve university CPD, but, alternatively, practitioners can choose own route for learning
- Potentially feed into professional MSc and Diplomas, for specialist certification

# Current Situation and Needs in Postgraduate Education

- Fragmented, knowledge-focused; need to be more around trajectories of learning and skills development relevant to individuals (workplace supported and delivered?) and therefore changing behaviours
- Most successful where commercially-led, companion animal oriented; need for more strategic international and national provision targeted on high level problems
- Virtually all intraprofessional; need for interprofessional provision responsive to developing political and professional agencies responsible for strategic planning, surveillance and action

- *“One of the troubles of our age is that habits of thought cannot change as quickly as techniques, with the result that as skill increases, wisdom fails”*

Bertrand Russell

- *The definition of insanity is doing the same thing over and over again, and expecting different results.”*

Albert Einstein