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Programme

Pre-conference workshops

A separate programme is available for each workshop. Workshops may run for a full day or half day only.

09.00-10.00	Coffee and tea available in the Mary Stewart Building atrium
10.00-10.30	Registration
10.30-13.00	Morning workshop session
13.00-14.00	Lunch for delegates will be served in the Mary Stewart Building atrium
14.00-16.30	Afternoon workshop session
16.30-18.30	Tour of Glengoyne Single Malt Whisky Distillery (optional, booking required)

Thursday 7 July

Symposium day 1

09.00-10.00	Breakfast available in the Mary Stewart Building atrium (buses will bring delegates from university accommodation sites)
09.30-11.00	Registration (tea and coffee provided)
10.00-10.45	Tour of the University Teaching Hospitals and/or Clinical skills facility (optional)

11.00-11.15	Welcome: Professor Ewan Cameron, Head of School of Veterinary Medicine.
11.15-12.15	<p>Plenary 1 – Dr Gregory Wolfus</p> <p>Director Tufts at Tech Community Veterinary Clinic, Cummings School of Veterinary Medicine, Tufts University</p> <p>“Highlighting the mutual benefits of a diverse learning environment while serving a community in need; Tufts at Tech Community Veterinary Clinic”</p>
12.15-13.15	Poster session 1 (parallel sessions)
13.15-14.00	Lunch in the Mary Stewart Building atrium
13.15-14.00	Lunch in the Mary Stewart Building atrium
14.00-15.00	<p>Plenary 2 – Eleanor Ferguson</p> <p>Head of Professional Conduct, Royal College of Veterinary Surgeons</p> <p>“Understanding Fitness to Practice”</p>
15.00-15.30	Break (tea and coffee provided)
15.30-17.00	Workshop session 1 (parallel sessions)
19.00-19.30	Drinks reception followed by...
19.30-23.00	Conference dinner and Ceilidh: Tall Ship, Riverside, Glasgow G3 8RS

Friday 8 July

Symposium day 2

08.30-09.30	Breakfast available in the Mary Stewart Building atrium (buses will bring delegates from university accommodation sites)
09.30-11.00	Workshop session 2
11.00-11.30	Break (tea and coffee provided)
11.30-12.30	Poster session 2 (Parallel sessions)
12.30-13.15	Lunch in the Mary Stewart Building atrium
13.15-14.15	Plenary 3 – Professor Fiona Patterson Director and founder for the Work Psychology Group Ltd Visiting Professor, Interdisciplinary Centre for Creativity in Professional Practice, University of London “Selecting for non-academic attributes: research, theory and practice”
14.15-14.45	Break (tea and coffee provided)
14.45- 15.45	Poster session 3 (parallel sessions)
15.45-16.00	Closing remarks – Professor Jill Morrison Dean for Learning and Teaching, College of Medical Veterinary and Life Sciences, University of Glasgow “Introduction to Vet Ed 2017”
16.00	Conference ends

Welcome to VetEd 2016

We are delighted to welcome you to Glasgow for the 7th Veterinary Education Symposium. We hope you find the event interesting and inspiring and that you enjoy your stay in Glasgow.

The aim of the VetEd Symposium is to provide an open and friendly atmosphere in which to share ideas, innovations, research and best practice in veterinary education. The symposium welcomes a wide range of delegates including veterinary educationalists, clinicians, academics, veterinary students, practitioners and researchers from many countries.

University of Glasgow Organising Committee

Jim Anderson, Fiona Dowell, Jennifer Hammond, Caroline Hutchinson, Rachael Johnston, Zamantha Marshall, Karen MacEachern, Jayne Orr, Sarah Povilauskas and Lissann Wolfe.

The committee would like to thank the Vet Schools Council and previous organisers of the VetEd Symposium for their assistance during the planning of the 2016 conference.

We would also like to thank our student ambassadors for their invaluable help.

Sponsors

We would like to thank our sponsors for this year's event:



Information for delegates

Information for poster presenters

Posters will be displayed in the atrium of the Mary Stewart Building.

Each poster has been assigned a number which will be available from the registration desk. Please use the Velcro tabs provided to display your poster on the board indicated by the corresponding poster number.

It is the author's responsibility to remove posters at the end of VetEd. Any posters remaining after 18:00 on Friday will be removed.

Poster presentations will be in parallel sessions in lecture theatres and seminar rooms. If you are presenting in a session, please sit near an aisle to cause minimal disruption to other members of the audience. During your presentation your poster will be displayed for 3 minutes. You will then have 2 minutes to take questions from the audience. Please do keep to time as much as possible – there are plenty of opportunities in the programme for later discussions.

Information for workshop facilitators

There will be sign-up sheets available at registration for delegates to choose their workshops. Workshops run in parallel sessions of 90 minutes, and you will have a computer, projector, flip chart (or white-board) available.

If you need any assistance, please do not hesitate to contact one of the committee or student ambassadors at the registration desk in the Mary Stewart Building.

Information for workshop delegates

In order to ensure the workshops run smoothly, numbers for each workshop will be limited and places assigned on a first-come-first-served basis. Sign-up sheets will be available from Thursday morning at the registration desk in the Mary Stewart Building. Please sign up for one workshop per parallel session.

Cloakroom

You are welcome to leave belongings in the Bag Drop Zone (Tutorial Room B1), which will be manned or locked at all times. Items are left at your own risk and VetEd or the University of Glasgow will not accept responsibility for lost or damaged items.

Food and refreshments

All catering will be provided in the Mary Stewart Building where there is also a canteen (The Barn) if you require anything else. Lunch and all refreshment breaks will be served in the Mary Stewart Building.

The Conference Dinner will be held on Thursday 7 July at 19:30 at the Tall Ship, Riverside. This was available on a first-come-first-served basis and must have been booked in advance at online registration.

Otherwise, there are numerous places to eat and drink in and around Byres Road and the West End; some are listed below:

- Oran Mhor: Byres Rd, Glasgow G12 8QX. Phone: 0141 357 6200
- Bo'Vine: 385 Byres Rd, Glasgow G12 8AU. Phone: 0141 341 6540
- The Bothy: 11 Ruthven Ln, Glasgow G12 9BG. Phone: 0845 166 6032
- The Ashoka: 108 Elderslie St, West End G3 7AR. Phone: 0141 221 1761
- Hillhead Book Club: 17 Vinicombe St, Glasgow G12 8SJ. Phone: 0141 576 1700

For those wishing to join the Glengoyne Single Malt Whisky Distillery Tour on Wednesday 6 July (16:30 – 18:30), there may be opportunities to acquire additional tickets; please ask at the Registration Desk.

Accommodation

Accommodation is at Queen Margaret Residence and Kelvinhaugh Gate. There is parking available at Queen Margaret Residence which is free of charge. There is on-street metered parking at Kelvinhaugh Gate. If you need assistance overnight, please contact Security at Garscube Campus on 0141 330 5799 and the Security Supervisor will be happy to advise.

Transport

A map of the Garscube Campus has been included within the proceedings and copies will be available at the Registration Desk. Limited car parking will be available on Garscube Campus.

Coaches will depart from Queen Margaret Residence and Kelvinhaugh Gate as indicated on the programme. Coaches arrive and depart from outside the McCall Building on Garscube Campus. If you need any assistance, please do not hesitate to contact one of the committee or student ambassadors at the registration desk in the Mary Stewart Building.

The timings for these are as follows:

Date	Time	Pick up	Drop off	Notes
06/07/16	16.30	Conference venue	Glengoyne distillery	Only for delegates who have booked to attend Whisky tasting
	18.00	Glengoyne distillery	Conference venue and conference accommodation sites	
07/07/2016	08.30	Conference accommodation sites	Conference venue	Early bus and late bus available
	17.00	Conference venue	Conference accommodation sites	
	18.40	Conference accommodation sites	Tall ship conference dinner	
	22.00	Tall ship conference dinner	Conference accommodation sites	
	23.00	Tall ship conference dinner	Conference accommodation sites	
08/07/2016	08.00	Conference accommodation sites	Conference venue	Bag storage available at conference venue

With a fleet of over 800 taxis, Glasgow Taxis are the largest supplier of licensed taxis in Glasgow and the largest in the UK outside London. Black taxi cabs can be picked up at most times on the street in the city centre and all around the West End, or by calling 0141 429 7070.

The Glasgow Citybus Route No 15 runs from just outside the Garscube Campus (Illy Road) to the West End and City Centre every 40 minutes. A single fare to the City Centre is £1.90. Change is given.

Computer access

You may use any of the computers in the computer suites or in the Mary Stewart Building. Use of the computers may be monitored by the University. If you need assistance, please ask at the registration desk.

Internet access

You can access wireless internet on your own laptops, tablets and smartphones.

For delegates from organisations participating in the Eduroam group, you can connect to Eduroam for the fastest internet. Please use your usual username and login from your home institution. If you have not used Eduroam before you should check that your device will connect at your home institution before you leave.

An IT Help Desk will be available at the following times adjacent to the Registration Desk to assist delegates having difficulties with accessing WiFi:

- Wednesday 6 July – 0900-1030
- Wednesday 6 July – 1300-1400
- Thursday 7 July – 0900-1045

Cash Points

There is a cash point on campus, at the lower ground floor level of the Mary Stewart Building.

Off campus there are ATM machines on Great Western Road, Crow Road and Byres Road.

Queries

Please do not hesitate to contact one of the organising committee or a student ambassador if you have any questions; we will be happy to help you.

For more info: www.vetedsymposium.org/vet-ed-2016

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Speakers

Plenary 1 – Dr Gregory Wolfus Director

Tufts at Tech Community Veterinary Clinic, Cummings School of Veterinary Medicine, Tufts University

“Highlighting the mutual benefits of a diverse learning environment while serving a community in need; Tufts at Tech Community Veterinary Clinic”

Dr Greg Wolfus is a small animal veterinarian who directs the Tufts at Tech Community Veterinary Clinic. Greg earned his veterinary degree from the Cummings School of Veterinary Medicine at Tufts in 1998 and spent 13 years working in small animal primary care practice. During this time he developed his interest in links between teaching and community service by volunteering in local K-12 education, moderating Problem Based Learning classes at Tufts, and teaching at Mt. Ida’s Veterinary Technician Program.

Greg leads the Tufts at Tech clinic which is an innovative project: the clinic is hosted in a local High School and is the first and only veterinary teaching clinic of its type in the world. Tufts at Tech provides a teaching environment that empowers students to change the lives of their clients through treatment of their animals by providing high quality care that otherwise they could not afford. Greg will share his experiences from running the clinic and insights into combining clinical practice, education, and community service.

Plenary 2 – Eleanor Ferguson

Head of Professional Conduct, Royal College of Veterinary Surgeons

“Understanding Fitness to Practice”

Eleanor is Head of the Professional Conduct Department at the RCVS and acting-Registrar. She qualified to practise as a solicitor in Scotland in 1981 adding qualifications to practise in England and Wales in 1987. She began her legal practice in Aberdeen and Edinburgh, specialising in litigation.

In July 2004 Eleanor joined the RCVS to bring the Practice Standards Scheme into being and has looked after the development of the Scheme ever since. In 2005, Eleanor took on the role of Disciplinary Solicitor and in 2012 was appointed Head of the Professional Conduct Department.

Eleanor will be speaking about Fitness to Practice – what this means in the wider regulatory landscape and for the RCVS and reflecting on the way that this is managed and the interaction with student fitness to practice. Although the RCVS now expects any adverse findings made in university fitness to practise proceedings to be declared upon application to join the register, there is also scope to take into account the fact that a student is not a fully-fledged professional and make some allowance for any mistakes and poor judgement when considering whether or not they should join the register. Eleanor will also touch on the new Alternative Dispute Resolution (ADR) framework shortly to be trialled at the RCVS and how this might impact on regulatory proceedings

Plenary 3 – Professor Fiona Patterson

Director and founder for the Work Psychology Group Ltd Visiting Professor, Interdisciplinary Centre for Creativity in Professional Practice, University of London

“Selecting for non-academic attributes: research, theory and practice”

Fiona Patterson is a founding Director of Work Psychology Group. She is a leading expert in the field of assessment, development, evaluation and innovation in organisations with over 20 years’ experience of working at a strategic level with a variety of FTSE 100 companies, public sector and governmental organisations.

Alongside her consultancy work, Fiona holds a Principal Researcher post at the University of Cambridge and a Visiting Professorship at City University. Prior to this, Fiona became the youngest female Professor in the UK when she was appointed Professor of Organisational Psychology at City University in 2003. She has also held academic posts at the University of Nottingham and at the Institute of Work Psychology, University of Sheffield.

Fiona has published widely in assessment, especially in relation to selection, innovation and change in organisations. In this plenary lecture she will focus on selection into professional education and the challenges of defining and developing selection processes which are fair, reliable and fit for purpose.

Workshops

Session 1: Thursday (15.30-17.00)

Room	Slot
Mary Stewart Semninar Room	Supporting Academic Skills & transition into Vet Schools – what about PALs?
Lomond Room	Reflection in Practice – Who, what, when, where, how, why?
SCPAHFS1	Veterinary student attitudes and concerns towards cadaver use in anatomy teaching
SCPAHFS2	Delivering Hands-on Donkey Welfare Education
SCPAHFS3	Unpacking employability: VETSET2GO!
Jarrett Lecture Thetare	Acting out the OSCE
Herriot Room	Innovations in Widening Participation at the University of Glasgow School of Veterinary Medicine
Kelvin Room 2	Veterinary Admissions Process: The Use of Personality Profiles

Supporting Academic Skills & transition into Vet Schools – what about PALs?

Paterson, J.E. R(D)SVS, University of Edinburgh & Davis, R. RVC, London

In 2013-14 R(D)SVS piloted a successful academic peer assisted learning scheme (VetPALs) to first year students. The scheme is based on the successful PASS(1) scheme whereby students in later years (leaders) provide peer support to students in earlier years (1st years) on topics related to learning and studying. This has gone from strength to strength with growing number of VetPAL leaders and first year students attending sessions. Leaders talk about enhancement of skills such as team working, communication, empathy, time keeping. The first years students talk about hearing from those that have been there before, getting great tips and ideas, feeling part of a wider community and having fun.

In 2015-16, RVC implemented a similar scheme, bringing together 2nd year students from their veterinary medicine and veterinary bioscience courses and training them in a coaching approach to peer support. Uptake of sessions has varied – topic, timing and location have proven very important in the popularity of sessions. One major (unexpected?) positive has been the strong relationships formed between students on different courses. Many peer academic coaches have also developed the confidence to go on and lead in other areas of college life.

This workshop will describe the two schemes and through discussion with the participants consider how this model could be implemented in other Vet Schools. By the end of the workshop participants should be aware of what is required to run such schemes and start to formulate a plan as to how they could take this forward.

(1) <http://www.pass.manchester.ac.uk/>

Reflection in Practice – Who, what, when, where, how, why?

Warman, S.M. University of Bristol

Developing skills in reflective practice is widely accepted as essential to professional development. However, in the pragmatic, problem-solving environment of clinical practice, reflection can seem rather abstract and subjective as a concept, and may be a tacit process for experienced practitioners. Within the UK, the Royal College of Veterinary Surgeons expects veterinary practitioners to develop skills in reflection as both Day 1 and Year 1 competences. Evidence of reflection is required within the Professional Development Phase (PDP) and in post-graduate qualifications. Despite this widespread acceptance of its importance, the concept of reflection in veterinary practice is not well defined. Improved understanding of the realities of reflective practice could inform strategies for supporting students during their transition to the professional workplace.

The workshop will give participants an opportunity to discuss what is meant by “reflection” and “reflective practice”, drawing on their own experiences, and informed by discussion of published literature and current research. Participants will be asked to consider whether reflection in veterinary practice is an individual or social activity, the types of situations that trigger reflection, the time and spaces in which reflection occurs, the activities and resources used to reflect, and the aims and outcomes of reflection. With whom, about what, when, where, how and why do veterinary practitioners engage in reflective activity?

Veterinary student attitudes and concerns towards cadaver use in anatomy teaching

İlknur Aktan*, Simon Lygo-Baker

*Department of Clinical Sciences, School of Veterinary Medicine, University of Surrey

Department of Higher Education, University of Surrey

Introduction: Acceptance at a veterinary school in the UK presents a big mile stone in students and parents' lives as admission requirements for veterinary schools are very demanding. Upon arrival students become aware of their responsibilities for working with live and dead animals.

Methods: In the survey included cadaver types were 1) donated dog (ethically sourced) 2) Shelter dog 3) Beagle from research institute 4) no preference. In addition to preference they were also asked to explain the reason/s for their choice.

The survey was presented to all first year students from the School of Veterinary Medicine, University of Surrey in the middle of 2015–2016 academic period. Completion of the survey was voluntary.

Results: Students selected their preference for one of the following four options (see table). They were also asked to explain the reason/s for their selection in one sentence (data not shown). 90 students responded out of a total 123 (73.2%). 33% chose donated dog from an owner (died of natural causes); 4% chose shelter dog; 6% chose beagle from a research institute and 26% chose no preference option.

Discussion and Conclusions: The aim of this preliminary survey was to gain understanding of veterinary students preferences for the source of dog cadavers used in anatomy teaching. Our pilot study indicated that many of the students would like to know more about the source of the cadavers used for teaching purposes.

Delivering Hands-on Donkey Welfare Education

Stephen Blakeway, Mariano Hernandez Gil, Kevin Brown – The Donkey Sanctuary

The Donkey Sanctuary's 'Hand' Welfare Assessment Framework has been used to deliver equine welfare training in 11 of Mexico's 54 veterinary schools and our intention is to extend and develop this in all States with large donkey and mule populations.

The 'Hand' provides educators, trainers and students with a simple structured tool, applicable in a wide variety of settings, that reminds us to look at animal welfare in an holistic way. The palm of The Hand represents the life of the equine, its husbandry and its working practices, and the five fingers represent the main welfare indicators: human-equid interaction; body condition score; integument and wounds; movement and lameness; and disease.

The objectives of this workshop are:

1. to outline the four-day 'Welfare in Practice' training course based around use of the 'Hand' Welfare Assessment Framework as currently delivered
2. to present lessons learnt to date, and challenges in taking the work forward
3. to solicit related experiences, ideas and advice from workshop participants to develop our welfare training
4. to explore broader educational applications

The workshop will be participatory. Participants will have an opportunity to use the Hand; to review the course outline and lesson plans; and to share ideas for making our welfare training more effective, for example through improving to quality of engagement, assessment and follow-up.

This workshop complements the poster presented by Mariano Hernandez Gil.

Unpacking employability: VETSET2GO!

Rhind, S., Hughes, K. Morton, C. University of Edinburgh. Mossop, L., Cobb, K. Nottingham University. Cake, M. Murdoch University

‘Employability’ is a term increasingly used to describe those factors that make an individual more likely to gain employment, and remain satisfied and successful in their chosen occupation. Though employability is only beginning to be explored in the veterinary context, it offers great utility as a unifying construct simultaneously addressing graduate success, wellbeing and resilience, successful transition to practice, and the development of transferable or “soft” skills.

In this workshop will give a brief overview of the international VETSET2GO project to set the scene for a more in depth discussion of the concept of employability from a range of different stakeholder viewpoints. Participants will have the opportunity to consider the various factors that contribute to employability and reflect on their relative importance from the perspective of the different stakeholder groups.

Preliminary results from the VETSET2GO project will be shared and participants will have the opportunity to have further involvement in the project by becoming part of an expert panel advisory to the project.

Acting out the OSCE

Butterworth, A. University of Bristol; Christopher, R. University of Bristol; Catterall, A. University of Bristol; Baillie, S. University of Bristol; Read, E.K. University of Calgary, Canada

OSCEs (Objective Structured Clinical Examinations) are a key part of the assessment of practical and clinical skills, and examination of student capacity to 'show they can do' practical tasks competently in several years of the curriculum at Bristol Vet School. OSCEs are used in Years 1 & 2 (Animal Management), and Year 3 (Clinical Veterinary Science) to test abilities in basic practical and handling skills as well as core clinical competences, which will underpin students' extramural and clinical studies, and their future work as vets.

To prepare students for OSCE examination methods, we have built on the methods developed at the University of Calgary, to create 'demonstration OSCEs' where staff 'Act out an OSCE' to a student audience. The same methodology is also used in examiner training. The equipment required for an OSCE, including an audio timing system, model animals, gates, screens and notice boards with the examined scenario descriptions, is set up on the lecture theatre stage, and the examined task is played out twice using staff 'actors';

1. in 'correct' mode - all items demonstrated correctly.
2. in 'incorrect' mode – where common mistakes are acted out and then discussed with students (or examiners).

This interactive and 'live' OSCE demonstration elicits many questions from the students during the session, and we believe that this activity provides the students a very valuable 'non threatening' arena in which to consider and familiarise themselves with OSCE assessment methods in preparation for their examinations.

Innovations in Widening Participation at the University of Glasgow School of Veterinary Medicine

Croll, N; Iguchi-Sherry, S; Tansley, L and MacEachern, K: University of Glasgow

The University of Glasgow (UoG) is committed to widening participation within the University for learners from all backgrounds. Access routes exist to every subject area within UoG for school leavers and adult returners to education.

Innovative partnership work has been conducted over many years to widen access to the high demand subject of Veterinary Medicine: Reach Scotland is a national schools project created in partnership with the Scottish Funding Council. UoG coordinates Reach West, working with S4-S6 pupils interested in studying a professional degree, including Veterinary Medicine, in 95 secondary schools across the region. Simultaneously, the Scottish Wider Access Programme Access to Medical Studies course provides an entry route for adult learners to Veterinary Medicine. These programmes support and prepare widening access applicants to apply to, enter and study Veterinary Medicine.

This workshop reflects on the impact of Reach and SWAP in several ways: 1) the development of a three-year schools outreach programme and one-year FE College access programme to raise aspiration and increase applications; 2) the introduction and practice of contextualised admissions via Reach / SWAP progression agreements; 3) the creation of a Vet School mentoring model to provide transition and on-degree support for Reach students; 4) the performance of Reach / SWAP entrants on degree course.

The workshop will encourage participants to consider and reflect on the barriers facing widening access applicants to Veterinary Medicine and analyse the successes and difficulties in setting up and maintaining widening access programmes to Veterinary Medicine within their institutions, sharing best practice and experience across the sector.

Veterinary Admissions Process: The Use of Personality Profiles

Chapman, S. University of Surrey; Lygo-Baker, S. University of Surrey

Non-cognitive (personality) factors have started to feature in the application process in the human medical field. Their inclusion is centred on trying to ensure that, in addition to academic ability, other qualities such as empathy, teamwork and resilience are taken into account. In so doing, a broader view of who is suited to cope with the clinical working environment is potentially adopted. In addition, it has been suggested that certain personality types may be less vocationally suited to the practice of medicine. Anecdotally, there are a number of personality factors of veterinarians in practice that have been suggested are either prevalent traits (i.e. empathy); useful traits (i.e. teamwork and resilience); beneficial (i.e. agreeableness and openness) or detrimental (i.e. perfectionism and neuroticism). The aim of this study was to determine if the incorporation of non-cognitive questionnaires might aid our understanding of the profile of prospective future veterinarians by examining what students perceived to be their own personality/behavioural traits at the outset of their study. The main conclusion of the study was that the use of personality questionnaires can provide more objective data. This has potential implications when looking at future student applications. More work on a larger sample size over a longer period of time with a refined questionnaires now needs to be undertaken before any significance can be determined with regards to the use of non-cognitive tests.

Session 2: Friday (09.30–11.00)

Room	Slot
Mary Stewart Seminar Room	Student mental well-being and the role and responsibility of educators
Lomond Room	Teaching veterinary clinical communication skills using a flipped classroom technique
SCPAHFS1	Adopting a coaching approach to staff and student academic development
SCPAHFS2	Work based assessment as a framework for case based teaching
SCPAHFS3	Professional Behaviours and Breaking Bad (news)
Jarrett Lecture Theatre	Techniques for analysing qualitative interviews
Herriot Room	Improving learning experiences to counter mistreatment, harassment and bullying
Kelvin Room 2	Veterinary Education/Profession PhD Workshop

Student mental well-being and the role and responsibility of educators

Dr. N.J.J.M. (Nicole) Mastenbroek (Faculty of Veterinary Medicine, Utrecht University, the Netherlands)

Prof. dr. W.D.J. (Wim) Kremer (Faculty of Veterinary Medicine, Utrecht University, the Netherlands)

In the Netherlands 16 percent of the veterinary professionals meet criteria for burnout within 5 years after graduation. Research among veterinary students in the UK and in the USA shows that student well-being is not significantly different from veterinary profession estimates, which might imply that lowered well-being of young veterinary professionals finds its origin in or before veterinary school. Vet schools intensify efforts to identify students which might require support early in the course. This appears to be difficult, possibly because of the perceived stigma associated with mental illnesses. However, what is the role and responsibility of educators in this?

In this workshop we want to show briefly the results of a study among 600 Master of Veterinary Medicine students at a Dutch University conducted in April 2016. The aim of the study is to explore the relationship between modifiable dysfunctional cognitions (and related behaviour) and burnout, engagement and depression. We'd like to discuss in small groups the role and responsibility of educators with regard to students mental well-being.

Additionally, we wish to share with participants an intervention called small group reflective learning that aims to encourage and enhance students' reflective skills in unravelling professional experiences. Discussing and analysing their experiences in small groups enables them to make explicit the knowledge that is implicit in their actions. Participation in small groups is expected to stimulate social interaction and enables students to recognize that they often have similar problems but find different ways to deal with them.

Teaching veterinary clinical communication skills using a flipped classroom technique

Matthew, S.M. Washington State University*; Warman, S.M. University of Bristol*; Schoenfeld-Tacher, R.M. North Carolina State University; and Danielson, J.A. Iowa State University

This workshop will present, analyse and critique a case study of teaching and assessing clinical communication skills using a flipped classroom technique. The workshop will incorporate both research results and participants' perspectives to contribute to and build the group's collective knowledge. The workshop is also designed to explain and demonstrate a reflective approach to teaching based on research evidence and critical reflection. This reflective approach is of value when implementing curriculum innovations in general.

The case study is based on a clinical communication skills class during a foundational veterinary professional practice course in the first year of the veterinary degree. The way in which the clinical consultation skills component was taught prior to the decision to flip the classroom will be reviewed, followed by an explanation and analysis of how it was taught and assessed following implementation of a flipped classroom technique. This analysis is broken down into preparatory activities, classroom activities and assessment. Each has four elements:

1. FULL OF HOPE: Aims and implementation of stage, full of hope it would be effective
2. WHAT DO YOU THINK? Views of participants on likely effectiveness, plus suggestions for improvement
3. WHAT ELSE IS THERE? Views and expertise from presenters, including findings from research
4. REALITY CHECK: What actually happened during implementation, and next steps for improvement

The session will conclude with a brief review of the goals of the workshop, activities demonstrated, and learnings gained by the participants.

Adopting a coaching approach to staff and student academic development

Rachel Davis and Kim Whittlestone, Royal Veterinary College, London. UK

A dedicated academic support service for students was launched at the Royal Veterinary College in 2003 and very quickly became 'over-loaded' with requests for help. Following conversations between the authors we realised there was an opportunity to link the support needs of students with the academic development of staff, building on the lessons from working 1-2-1 with students. In 2012, we launched the first 'Teaching and Learning INSET day' aimed at helping staff understand the academic support needs of the increasingly diverse student body. Themes have ranged from improving feedback, workplace learning and small group learning to supporting students with mental health issues and specific learning differences. Events run 3 times per year and are themed according to the needs of staff and students. Over time, our approach has incorporated coaching techniques such as listening exercises, world café, appreciative inquiry and metaphor cards. We prioritise space and time for thinking and sharing of experiences and home baked refreshments. Approximately 70-80 staff and around a dozen students attend each INSET day. We position these sessions as an opportunity for enhanced communication about issues important to everyone in a safe, fun and creative environment. As the INSET days have evolved we have secured the trust of our colleagues and students and connected the two in exciting new ways.

This workshop will demonstrate and explore the key elements of adopting a coaching approach to staff and student development; techniques that can be taken away and tried in the delegates own workplace environment.

Work based assessment as a framework for case based teaching

James Kithuka¹, Ebony Escalona²; ¹Brooke East Africa, ²Brooke UK; james.kithuka@thebrooke.org

The Brooke is an international organisation working to improve working equine welfare. Brooke East Africa (BrEA) works with partners to reach 250,000 working donkeys through positive change in knowledge, attitude and practices of donkey owning communities, strengthening access to quality health services of donkeys and advocating for suitable policy and resource allocation to donkeys.

Work based assessment (WBA) involves observing the practice of a clinician throughout a clinical event. Work based methods of assessment target the highest level of Miller's framework for assessing clinical competence and collect information about performance in normal practice.

BrEA has extensive experience of using WBA to improve the quality of animal health services by local providers. Healthcare provider work was monitored using WBA rubric covering six specific areas (animal welfare, communicator, clinical expert, clinical governance, kit content, kit maintenance). WBA scoring was binary (achieved/not-achieved). While administering WBA, the healthcare provider took the lead working through a routine clinical case, while the mentor observed, offering immediate feedback using the rubric.

Use of WBA rubric to enhance healthcare provider's clinical quality in field situation has been accepted by, and is motivating to healthcare providers in Kenya. We will provide insights into how Brooke employs this technique to train and mentor a diverse range of practising post-graduate veterinarians during WBA through application of training and facilitating adult learning methodologies.

This Symposium workshop will provide delegates with opportunity to explore benefits and limitations of a WBA tool and its use for under-graduate, post-graduate teaching and practising healthcare provider mentoring

Professional Behaviours and Breaking Bad (news)

Jeffery, A Bristol University and Orpet, H Royal Veterinary College

Veterinary and veterinary nursing students are required to complete periods of their training/course within a work placement. They are required to demonstrate development in certain professional behaviours and attitudes. It appears that there are a number of differences between how this is monitored for both veterinary nursing and veterinary students.

The aim of this workshop is to examine both these professional behaviours and attitudes by reviewing different tools for measuring these. In addition, we will investigate the mechanisms by which placement supervisors are prepared for students. We will also consider, through scenarios, how we should be giving feedback to help the students development. Whether this feedback is left to the end of placement or whether a staged approach might be more beneficial to both student and practice. Part of the process of effective and constructive feedback relies on the placement supervisor having the skills in order to do this, avoiding unconstructive and damaging criticisms. This workshop will investigate mechanisms by which placements are prepared for placement.

Alternatively (or in addition!) we would like to present a poster on the development of the behavioural tool for assessment of professional behaviours.

Ref: Mossop, L and Cobb, K. 2013, Teaching and Assessing Veterinary Professionalism. JVME Sep 2013, Vol. 40, Issue 3, pp. 223-232

Techniques for analysing qualitative interviews

Hannah Perrin, Royal Veterinary College

This workshop aims to introduce the principles and practice of qualitative interview data analysis. It will use a combination of traditional presentation, demonstration, practical activities, and group discussion.

It is aimed at clinicians, researchers and postgraduates who are planning to undertake or manage qualitative research using in-depth, narrative or semi-structured interviews, or those who have already collected qualitative interview data which they are unsure how to analyse.

The session will include:

- an introduction to the principles of qualitative data analysis and analytical techniques available
- an outline of the stages of interview data collection, management, analysis and writing up
- hands-on individual and small group practical exercises using real data to develop participants' skills in coding interview data and developing coding frames
- techniques to construct broader categories within data sets and identify overarching themes
- an overview of other qualitative analysis approaches and methods available; and alternative applications for thematic analysis techniques
- an introduction to the software available for data management
- suggestions for sources of further information and training in qualitative data analysis

By the end of the session participants should be more confident in their ability to code qualitative data, and in developing a thematic framework to conceptualise the phenomenon under investigation.

Improving learning experiences to counter mistreatment, harassment and bullying

Robbé, I.J. Memorial University, Newfoundland, Canada, and Dundee University, Scotland

Learning Objectives:

- A. to discuss positive and negative influences on the learning experiences of our undergraduate and postgraduate veterinary students;
- B. to identify and analyse the causes of those influences;
- C. to explore ways to increase the positive influences and to reduce the negative influences on learning experiences in veterinary education.

Rationale/Background: This workshop's context relates to positive and negative influences on the learning experiences in veterinary education. Researchers in human health care education have identified an increasing prevalence of negative learning experiences including mistreatment, harassment and bullying reported by undergraduates and postgraduates (Major, 2014; Sklar, 2014). If similar negative experiences occur in veterinary education then there will be adverse effects on the mental and physical health of the learners and thereby on their patients and clients.

Methods: This workshop will iterate cycles of plenary and small group work based on each learning objective consecutively. Specific guidance will be provided for the group work: real life case studies from veterinary education, recorder, reporter, timing, feedback points using the "sticky wall™". Two-thirds of the workshop time will involve active participation including encouraging the participants to share their experiences in a constructive learning environment.

Discussion: The human health care education literature has identified ways to create more positive learning experiences across the spectrum from the individual, to the team, and to the wider organisation (Hoff, 2004; Kilby, 2014; Lamoureux, 2009; Michela, 2014). Their applicability in veterinary education will be discussed to help the participants to develop their own take away plans.

Veterinary Education/Profession PhD Workshop

Dr Tierney Kinnison¹, Dr Sylvain Dernas² and Dr Carrie Roder¹

¹LIVE, The Royal Veterinary College, ²VetAgro Sup, University of Lyon

This workshop is designed to bring together PhD students from across the UK, and even more widely, across the globe (France, USA, Australia etc). Specifically, the workshop will reinforce the community of current, past and prospective PhD students in the areas of veterinary education/the veterinary profession. For the last two years, VetEd has hosted the annual meeting of the community; in a pre-conference workshop in 2014 (Bristol) and a conference workshop in 2015 (Cambridge). Both events attracted approximately 20 people. The proposal for 2016 (Glasgow) is to reinforce this community and to attract new individuals who have just started PhDs or are interested in doing so. It is anticipated that the workshop will consist mainly of current PhD students of veterinary education and/or the veterinary profession. The facilitators have recently completed their PhDs and are keen to share their experiences – and we would like to welcome anyone else who has also completed an education/profession PhD to share their wisdom with us all! This workshop also gives individuals hoping to start a PhD the chance to gain advice from those further through their studies; so veterinary or Masters students, practitioners and educationalists are all welcome. During the workshop everyone will be invited to update us with their research, or tell us why they have chosen to attend the workshop: every attendee will have a time dedicated to discussing their project with their peers, if they wish. The workshop is designed to be friendly, relaxed and flexible to the attendee's needs.

Posters

Session titles and locations

Thursday

- Technology and e-learning (1) - McCall Lecture Theatre
- Student well-being and transition into practice - Jarrett Lecture Theatre
- Veterinary Curriculum - Mary Stewart Seminar Room

Friday morning

- Technology and e-learning (2) - McCall Lecture Theatre
- Scholarship, CPD and Pot Pourri - Jarrett Lecture Theatre
- Teaching Methods - Mary Stewart Seminar Room

Friday afternoon

- Clinical Skills - McCall Lecture Theatre
- Assessment, Admissions and transition into Vet School - Jarrett Lecture Theatre

T1: Technology and e-learning (1)

1	Learning from observing: what do students think they learn?
2	A novel approach to improve undergraduate veterinary training in bovine transrectal palpation (TRP) and pregnancy diagnosis (PD) skills
3	Simulating the management of congestive heart failure with the VIN Virtual Clinic
4	Using mobile technology to foster formative assessment on clinical extramural studies - an educator's perspective of getting started
5	Digital videos as teaching and learning material in veterinary medical education at the TiHo Hannover
6	In Their Hands: student experiences with a gesture recognition system for handwashing
7	An interactive session on clinically relevant acid base physiology for first year veterinary science students
8	Does participation in a Small Private Online Course provide 'food for thought' in terms of changing learner attitudes and behaviours?
9	Creation and Evaluation of a 3-D printed model to Support Otoscopy Skills in Veterinary Students
10	A novel and interactive approach to student orientation in the University hospital environment
11	Using lecture capture software to produce training resources to support population medicine teaching to veterinary undergraduates

Learning from observing: what do students think they learn?

Warman, S.M. University of Bristol

Clinical rotations give students many opportunities to be actively involved in patient care. However, there are some situations where the students' role is that of observer. This pilot study was undertaken to investigate students' perceptions of what they learnt whilst watching procedures in small animal medicine rotations during final year at the University of Bristol. Ethical approval and informed student consent were obtained.

Fifty eight students who undertook medicine rotations between May and August 2015 consented to anonymous, retrospective analysis of their log sheets. These log sheets recorded procedures undertaken and observed, with space for the student to reflect briefly on what they had learned.

545 observed procedures were logged (279 in dogs and 266 in cats) with reflective comments available for 499 (91.6%). The three most commonly observed procedures were abdominal ultrasound (n=140), computed tomography scanning (CT; n=42), and gastrointestinal endoscopy (n=40).

Thematic analysis of reflective comments for the most commonly observed procedures was undertaken. Students observing ultrasound procedures most frequently reported learning about the appearance of organs; aspiration and biopsy techniques; use of ultrasound in specific scenarios; the technique and limitations of ultrasound; and patient restraint. Students observing CT scans and/or gastrointestinal endoscopy reported learning about the appearance of diseased tissues, improved understanding of the techniques, and better understanding of biopsy techniques (endoscopy). These findings will be used to inform discussions between staff and students during observed procedures, to further support student learning.

A novel approach to improve undergraduate veterinary training in bovine transrectal palpation (TRP) and pregnancy diagnosis (PD) skills

¹Annandale, A., ¹Holm, D.E., ²Eksteen, C., ¹Fosgate, G.T. and H.G.J. ³Bok.

¹Faculty of Veterinary Science, University of Pretoria, ²Faculty of Health Sciences, University of Pretoria, ³Faculty of Veterinary Medicine, Utrecht University

Pregnancy Diagnosis (PD) by transrectal palpation (TRP) in cattle is an important Day 1 competency for veterinary graduates which can only be mastered after a significant amount of experience. Fifth year students (n=128) who had received formal theoretical and practical training in bovine TRP and PD (live cows and simulators) during their fourth year were assessed for PD accuracy on live cows. Participation in the challenge was incentivized by a prestigious prize for the student with the best PD accuracy. Prior to the assessment, isokinetic muscle testing (using the automated Cybex machine and involving biokineticists) and a physiotherapy training programme were offered to the students. Seventy-nine students volunteered to participate in the muscle strength testing and of these, 40 were randomly allocated to a 6 week physiotherapy exercise programme after which muscle strength was reassessed. This project therefore evaluated the effect of a physiotherapy training programme on muscle strength and PD accuracy and encouraged student-driven learning and preparation for the challenge. Each student performed a PD on 6 cows of which the status was unknown to the students. An experienced veterinarian later confirmed the PD which ranged from 6 weeks to 9 months or not pregnant. Sensitivity and specificity of PD were defined as the proportion of pregnant or non-pregnant cows respectively, correctly identified as such by the student.

Preliminary results show that the physiotherapy training programme increased the sensitivity of PD and also increased grip strength of the right hand compared to students not participating in the training programme.

Simulating the management of congestive heart failure with the VIN Virtual Clinic

Balogh, M.; Seaman, N.; Gwaltney-Brant, S.; and Pion, P.D., Veterinary Information Network

The VIN Virtual Clinic (VVC) is an interactive, online environment, where veterinary students can learn the key points to approaching several clinical problems in a simulated, safe environment. This poster focuses on the design and implementation of virtual patients for teaching the management of congestive heart failure in an emergency scenario. In addition to the descriptive poster, detailing the features, workflow, and goals of this simulation, hands on trial of the simulation will be available during the conference.

Using mobile technology to foster formative assessment on clinical extramural studies - an educator's perspective of getting started

Diane Cashman, Mark Carty, Barbara Gallagher, Dr Sue Rackard

Introduction: Students of the Veterinary Medicine programme in University College Dublin (UCD) are required to undertake 24-weeks of clinical extramural studies (CEMS) in a range of working environments to enhance their competencies and clinical skills. Mobile technologies afford the opportunity to capture CEMS supervisor feedback in real-time, stimulating student engagement and competency development.

Methods: This poster presents a case study of the UCD School of Veterinary Medicine's process of choosing and implementing a mobile technology to foster formative assessment (FA) on CEMS. This case study aims to

1. Investigate the characteristics of mobile technologies that support FA.
2. Identify the process(es) required to ensure effective implementation.

Data were collected from stakeholders to identify key requirements and technology characteristics. A list of criteria was compiled, against which commercial products were evaluated. The process of implementing the chosen technology was documented, reviewed and reflected upon from the perspective of the educational technologist and academic staff.

Digital videos as teaching and learning material in veterinary medical education at the TiHo Hannover

Kleinsorgen C., Wöhlke A., Müller L. and Schaper E. University of Veterinary Medicine Hannover, Foundation

The University of Veterinary Medicine Hannover (TiHo Hannover) provides digital videos as educational material for teaching and learning.

Since 2012 instructional videos and tutorials, in particular to promote practical skills training in the Clinical Skills Lab are available via the YouTube-channel „TiHoVideos“, in which more than 80 videos are accessible. The TiHoVideos channel has around 1.300 subscribers from more than 90 countries and over 490.000 views (status 19.04.2016).

Online lectures using the web-based conferencing tool Adobe Connect were set up and recordings are available online as open educational resource or password-protected. An online lecture series was held in 2014-2016 by the Competence Centre for E-Learning, Didactics and Educational Research in Veterinary Medicine (KELDAT). 18 online lectures were held with in average 125 participants, of which 17 were recorded and made available on the KELDAT-Homepage.

Lecture recordings using the open-source software Opencast were implemented at the TiHo in 2015. Records can be used for preparation, post-processing or repetition of teaching events by students. For lecturers records can be used to reflect on their teaching performance.

In order to obtain qualitative and quantitative feedback from students and lecturers concerning the acceptance, usage and the demand for further digital video production in veterinary medical education at the TiHo Hannover, surveys, interviews as well as focus group interviews were performed. Results will soon be published.

These new technologies provide great potential to improve the quality of learning and teaching in veterinary medical education, but tangible benefits need to be further analysed.

In Their Hands: student experiences with a gesture recognition system for handwashing

Mosley, C., Bell, C., Mosley, J. and Rhind, S. The Royal (Dick) School of Veterinary Studies

Introduction: Infection control (IFC) and associated hand hygiene protocols are essential core skills that are embedded throughout the curriculum at the Royal (Dick) School of Veterinary Studies in Edinburgh. Despite this, anecdotal observations have noted that students may fail to demonstrate correct hand hygiene protocols during clinical rotations.

Methods: The project introduced an open access educational intervention in the form of Surewash[®], a mobile computer system with gesture recognition software that provided computer-based instruction to students for each key step in the hand hygiene protocol. This allowed students to practice the protocol as often as they wished, and gave them feedback on the steps they found difficult.

Infection Control Ambassadors (ICA) from each year were recruited and trained to promote the Surewash[®] training to their peers.

Results: Over a period of 4 weeks, a total of 94 students completed the Surewash[®] training. 33 students failed to complete all steps of the training programme successfully, and several individual steps proved to be challenging for students. Across all years, the average number of interactions per student was 3.2; however, one year cohort averaged 5.9 interactions per student.

Discussion: The Surewash[®] machine offered an additional educational intervention that students engaged with successfully on an open-access basis. Enlisting ICAs encouraged student engagement with the training. Future work will include focus groups to identify differences in engagement levels between years, and why certain steps in the protocol proved to be difficult.

An interactive session on clinically relevant acid base physiology for first year veterinary science students

E. J. Senior, A. Smith, C. Smith and F.M. MacMillan, University of Bristol

Acid base balance is a challenging concept for first year students. Here we describe the development of a case based interactive session for first year veterinary science students. This incorporates the use of interactive methods (audience response devices, turning point) and data from veterinary cases, both of which have been demonstrated as an effective way of increasing student engagement.

The session immediately followed a lecture on the basis of pH and acid base disturbances. In the interactive session 5 cases were presented. The values of blood analysis were presented along with relevant clinical signs. The students used turning point to answer questions relating to the possible disturbance and underlying cause of each case. Students were provided with a handout for completion along with a nomogram to help aid their diagnosis. Compensatory mechanisms for each case were discussed. In one case (renal failure) the clinical data was modelled using paediatric settings of a human patient simulator software (Meti) to provide respiratory data that was relevant to the compensatory mechanisms.

The session was evaluated via a test and a questionnaire completed immediately before and after the interactive session. There was a statistically significant increase ($P < 0.001$) in the post session test scores (from a mean of 62.5% to 86.0%) indicating the students' knowledge improved in the session. The questionnaire data demonstrated the students improved their confidence in the topic and that they found the session useful and informative. The session will be incorporated into the first year timetable in future years.

Does participation in a Small Private Online Course provide 'food for thought' in terms of changing learner attitudes and behaviours?

Smith, M., Royal Veterinary College; Dale, V.H.M., University of Glasgow; Nevel, A., Royal Veterinary College; and May, S.A., Royal Veterinary College

Recent years have seen a growth in technology-enhanced learning approaches that promote flexibility; and Massive Open Online Courses (MOOCs), in particular, have been seen to play a role in widening access (Gordon, 2014). Parallel to this, higher education institutions have developed and offered Small Private Online Courses (SPOCs); enabling the same degree of accessibility but with a smaller cohort.

A study was undertaken to assess whether participants' attitudes towards animal production systems and behaviours relating to food consumption had changed as a result of participation in a SPOC entitled 'Food for thought'. The course was designed to educate and challenge participants' assumptions about food production systems, particularly ethical considerations.

Results from a post-course survey revealed that while some learners considered animal production scenarios as 'less acceptable', others regarded these as 'more acceptable', and a sizeable proportion were unchanged (though some practices were considered more acceptable than others, overall). There was, in contrast, a marked positive change in relation to consumer behaviours indicating an increased likelihood to buy ethically-produced food. Moreover, a principal components analysis revealed two factors which explained the variance in the Likert scale items, clearly separating attitudes and behaviours.

Acknowledging the limitation that responses were self-reported, this study suggests that participation in a SPOC may be useful in changing learner behaviours in the short term; however, changing ingrained attitudes is more difficult and may require a more systematic, longitudinal intervention.

Ref: Gordon, N. (2014). "Flexible Pedagogies: Technology Enhanced Learning." Retrieved 26 April, 2016, from <https://www.heacademy.ac.uk/flexible-pedagogies-technology-enhanced-learning>.

Creation and Evaluation of a 3-D printed model to Support Otoscopy Skills in Veterinary Students

Stendahl, A., Schwarz, T, Collins, R., Mosley, C. Rhind, S. R(D)SVS, University of Edinburgh

A 3D model of a canine ear canal was created by acquiring CT images of a healthy canine ear canal to recreate a rendered 3D image suitable for 3D printing. Initially the model was printed in hard material with the final model printed in a flexible material on an Object Connex printer to mimic the pliability of the ear canal as closely as possible. The finished ear model was inserted into a stuffed model patient. 30 students piloted the model in a tutorial session.

Students completed an initial survey to ascertain how much training they had previously had in otoscopy and how confident they felt with this skill. Students were surveyed again at the end of the intervention on their confidence and also whether they thought the model should be introduced into the core curriculum. Although the previous experience of the students with the technique varied, there was no significance ($p=0.161$) between this previous training and the level of confidence of students at the start of the training session. Using the model significantly improved students confidence in the technique ($p=0.000$). All students agreed that the model would be a useful addition to the clinical skills curriculum; suggestions for the future included printing models that depict ear disease, printing models from different breeds of dogs, such as brachiocephalic breeds and introducing numbers or letters at the level of the tympanic membrane.

A novel and interactive approach to student orientation in the University hospital environment

F. Whitworth, S. Warman, N. Crabb; University of Bristol School of Veterinary Sciences

The transition into clinic-based teaching can be a challenging time for students, in part due to a lack of familiarity with the hospital environment. Traditionally, orientation of Final Year students at the University of Bristol comprised guided tours in groups of 20-30 students. Students and staff recognised the need for a more individualised approach to orientation, which can be undertaken by students in a self-directed and engaging manner.

This presentation will describe the development and initial implementation of a tool which allows students to self-direct their orientation, by guiding them through a clinical scenario via the use of QR codes at appropriate locations in the hospital. The students receive virtual case information and instructions via a mobile device whilst being required to move around the hospital as if managing a real case.

Cognitive theories suggest that learning involves the interplay of existing knowledge, in this case clinical knowledge, and new knowledge, which are the hospital locations. This tool provides a clinical scenario to act as the bridge between the two to facilitate learning of hospital locations. Research into effective use of technology enhanced learning (TEL) in medical training suggests that the interaction within a game is important to allow effective TEL. This tool provides a framework for students to interact with the hospital environment to facilitate their learning.

Using lecture capture software to produce training resources to support population medicine teaching to veterinary undergraduates

Tisdall, D. University of Bristol

Being able to apply the principles of clinical epidemiology to farm animal practice is essential for the delivery of effective herd health management (HHM) and is an important skill for veterinary undergraduates to develop. To do this efficiently, students need to gain exposure working with a range of commonly-used software such as Interherd (Pan Livestock Services) or Total Vet (Sum-IT) to interrogate real-life data; explaining patterns of disease, integrating their findings with on-farm observations and recognising opportunities for intervention. Use of such software is often not intuitive and students consistently find getting-to-grips with using them to apply basic principles of clinical epidemiology a challenge.

Examples of common epidemiological challenges include;

- Applying the concepts of incidence and prevalence
- Identifying the “at-risk” population
- Applying an appropriate lag period
- Developing a logical approach to data analysis

Examples of common software challenges;

- Importing farm data
- Successfully navigating the menus to identify the correct report
- Understanding the different terminology used to describe the same parameters

A series of short “how-to guides” and “walk-throughs” are being developed using Mediasite Desktop Recorder (Sonic foundry inc), which simultaneously records screen footage and audio, in order to address these challenges. These will be made available through the University of Bristol’s online learning environment to support population medicine teaching during final year farm animal rotations, and reinforce existing workshops on applied clinical epidemiology and HHM delivered in second and fourth year, respectively. Student access will be tracked to assess engagement and an online questionnaire is planned to assess the impact.

T2: Student well-being and transition into practice

1	VetSet2Go—an international project to build veterinary employability
2	Importance of various professional competencies for veterinary graduate success: A systematic review
3	Perspective from near-peers involved in an ‘early intervention’ metacognitive skills workshop for academically ‘at risk’ students
4	The development of a new “School Charter” in a student led project
5	Educating Rita (...the veterinary surgeon)
6	A discourse analysis of the depiction of veterinary training and the “good new graduate” presented by UK veterinary organisations
7	Mistreatment, harassment and bullying of learners – part of real life learning experiences?
8	Introducing the topic of ‘Wellbeing’ in the undergraduate veterinary programme at Bristol
9	Cultivating self-awareness -- a crucial element of resilient mindsets in students
10	Resilience in the veterinary profession

VetSet2Go—an international project to build veterinary employability

Cake, M., Bell, M., King, L. Mansfield, C. Murdoch University. Schull, D. King, E. University of Queensland. McArthur, M. Hamood, W. Feakes, A. University of Adelaide. Zaki, S. University of Sydney. Matthew, S. Washington State University, Mossop, L. Nottingham University, Rhind, S. University of Edinburgh.

VetSet2Go is an internationally collaborative, OLT-funded project, which aims to define the capabilities most important for employability and success in the veterinary profession, and create assessment tools and resources to build these capabilities. In this context, we have defined employability as: “A set of personal and professional capabilities that enable a veterinarian to gain employment, and develop a professional pathway that achieves satisfaction and success” (adapted from Hinchcliffe, 2001). An employability approach encourages focus beyond threshold (‘Day One’) graduate competencies (e.g. RCVS, 2014) towards sustained success and satisfaction in professional employment, thus addressing several emerging issues, e.g. emphasis on transferable professional skills, diversification in a changing job climate, resilience and mental health in the transition to practice, and alignment and unification of competing stakeholder perspectives (employer, client, patient, colleagues, profession, self). Current evidence for drivers of veterinary employability is limited, which has lead Phase 1 of the project to commission qualitative and quantitative research into employer and graduate/employee perspectives, client expectations, and resilience. Phase 1 will inform development of a veterinary employability framework solidly grounded in both evidence and multi-stakeholder consensus. Phase 2 will adapt this framework to a multisource feedback approach including self-, peer- and supervisor (WiL) assessment, and associated teaching resources. The VetSet2Go website (www.vetset2go.edu.au; twitter @VetSet2Go) has been launched and the project team seek to engage with related employability/WiL projects and scholarship.

Importance of various professional competencies for veterinary graduate success: A systematic review

Cake, M.A. Murdoch University, Perth, Australia; Bell, M.A. Murdoch University, Perth, Australia; Williams, J.C. University of Bristol, UK; Brown, F.J.L. University of Edinburgh, UK; Dozier, M. University of Edinburgh, UK; Rhind, S.M. University of Edinburgh, UK; and Baillie, S. University of Bristol, UK.

Background: Professional (non-technical) competencies are increasingly included in undergraduate veterinary curricula and a systematic review was undertaken through the Best Evidence Medical Education (BEME) collaboration to establish the level of supporting evidence.¹

Methods: A protocol was written with inclusion and exclusion criteria and a coding sheet. A search of electronic databases was conducted (1988-2015) and limited to the veterinary discipline. Evidence was sought from consensus-based competence frameworks, surveys of stakeholder perceptions, and empirical evidence linked to relevant outcomes (e.g. employability, client satisfaction or compliance). Data extraction was completed by two independent reviewers.

Results: From an initial 21,000 records, 52 sources were included in the review. These provided evidence from expert frameworks (10), stakeholder perceptions (30, including one from the previous category), and empirical research (13). Communication skills were the only competency to be well-supported by all three categories of evidence. Other competencies supported by multiple sources of empirical evidence include empathy, relationship-centred care, self-efficacy, and business skills. Competencies perceived to be relatively more important included awareness of own limitations, professional values, critical thinking, collaboration, and resilience. Some competencies were not supported by evidence from the graduate perspective in spite of being considered important for the broader veterinary profession (e.g. leadership, cultural competence, public advocacy, conduct of research),

Conclusions: With the exception of communication skills, there is a comparatively weak body of evidence supporting the importance of veterinary professional competencies. However this may reflect the scarcity of high-quality veterinary-based education research rather than the true importance of these competencies.

1. Cake M, Bell M, Williams J, Brown F, Dozier M, Rhind S, Baillie S. 2016. Which professional (non-technical) competencies are most important to the success of graduate veterinarians? A Best Evidence Medical Education (BEME) systematic review: BEME Guide No. 38. *Med Teach* (in press), doi: 10.3109/0142159X.2016.1173662

Perspective from near-peers involved in an 'early intervention' metacognitive skills workshop for academically 'at risk' students

Keys, C.T., Paterson, J. E., Phillips, K., Yntema, M. R(D)SVS, University of Edinburgh

Over the last few years the Medical School at the University of Edinburgh has built a predictive tool to detect students that may fail their first summative assessment. Over the last two years, a PTAS project led by the Medical School, but also involving the School of Mathematics and R(D)SVS has been using this data to invite a number of 'at risk' students to a metacognitive skills workshop run by near-peers prior to the first summative assessment. This presentation will focus on the views of the near-peers running these sessions at the R(D)SVS. The near-peers attended training sessions in November 2014 and a re-fresher and update session in December 2015. Two hour workshops with 'at risk' students took place in November 2014 within the central campus and January 2016 at the R(D)SVS (the main exam for the first years taking place in February). The main themes of the workshops focused on using metacognitive skills to maximise performance, such as goal planning, time management and dealing with academic difficulties. Attendance at each workshop was low; under a quarter of the students invited came along but those attending did find the workshops very useful. The near-peers commented that the workshops made them reflect on their own experiences and that they had to re-evaluate their own first year experience in terms of the metacognitive skills involved and in particular those relating to threshold concepts. The sessions also allowed the near-peers to develop their skills in planning and running a small group workshop.

The development of a new “School Charter” in a student led project

Janika Patel and Liz Mossop, School of Veterinary Medicine and Science, University of Nottingham, UK

In addition to learning the knowledge and skills necessary to be excellent clinicians, veterinary students must also develop as professionals. Whilst the formal curriculum can play a large part in this, the hidden curriculum is also of crucial importance. Veterinary students must learn to negotiate the “rules of the game”, and actively reject negative role models. Faculty therefore carry a huge responsibility for behaving appropriately and acting as positive role models.

At the School of Veterinary Medicine and Science, University of Nottingham, staff and students have worked in partnership to redefine the behaviours and attitudes expected of each other and create a new “School Charter”. This engagement project was led by the Student Education Rep and the Sub Dean for Teaching, Learning and Assessment. All students and staff were invited to submit their ideas about their expectations of behaviour in the school. Ideas were collected through lunchtime sessions run by class reps and through an online survey, and there was a huge response. Student reps worked with staff to refine the content and the new charter was finalised. It contains core behaviours expected of both staff and students, and some unique aspects for each party which neatly map to each other. It is hoped that this visible reminder will impact on the hidden curriculum of the school, and that all staff and students have ownership of the charter due to their involvement in its creation.

This poster will describe the charter’s formation and implementation within the school.

Educating Rita (...the veterinary surgeon)

Jeffery, A Bristol University and Orpet, H Royal Veterinary College

It is essential that professions learn with, from and about each other to optimise effective team work in the provision of veterinary care (CAIPE 2011). An understanding and application of inter-professional education and practice should ideally be introduced as part of the veterinary curriculum. It is evident that many veterinary students are unsure as to what the veterinary nurse may do as it is not explicit in the day one skills. This can lead to inefficient use of the RVN's skills and knowledge. Evidence from RCVS VN futures roadshows, is that RVNs also feel underutilised and undervalued in practice. Currently, the Royal Veterinary College and Bristol University deliver one lecture on the role of the Registered Veterinary Nurse within the third year of the veterinary curriculum. Additional optional, more practical based sessions are available at the RVC with evidence that students would like more of this. Based on previous work by Sarah Baille and Tierney Kinnison, we would like to present a poster on the proposal for a toolkit to enable education on this important topic at all veterinary schools.

A discourse analysis of the depiction of veterinary training and the “good new graduate” presented by UK veterinary organisations

Hannah Perrin, Royal Veterinary College

This study examined the cultural narrative of veterinary education and veterinary medicine as an occupation through discourse analysis of its organisational publications.

Documents were identified and collected from national veterinary organisations and associations via keyword searches of each organisation’s website and in person at two national veterinary conferences. 62 documents were screened and 16 met the inclusion criteria. This set of documents was then examined in detail using thematic analysis.

Results showed that, surprisingly, animal welfare is a significant silence in the organisational discourse of veterinary medicine. The discourse analysis revealed the overwhelming presentation of the elite academic nature of the profession, at the expense of any mention of animal care or welfare, or acknowledgement of vocational motivation. A compelling collective responsibility was also identifiable in terms of upholding a professional reputation and its high standards. A strong occupational history contributes to this, leading to a very bonded occupational group. The idea of veterinary medicine not being a 9-5 job is expressed. However, there exists a very clear, organisationally-sanctioned, officially-approved attitude towards veterinary life and work, allowing very little deviation.

This study suggests that one factor that could underlie the high levels of stress and dissatisfaction with their work among the veterinary workforce could be a mismatch between a new entrant’s ideas of what a vet is and does, and the reality of working life in veterinary practice and within the broader occupational context. The need to reconcile this is therefore a significant disrupting factor in the socialisation processes of veterinary training.

Mistreatment, harassment and bullying of learners – part of real life learning experiences?

Robbé, I.J. Memorial University, Newfoundland, Canada, and Dundee University, Scotland

Internationally researchers into the learning environments in human health care education have identified an increasing prevalence of negative learning experiences including mistreatment, harassment and bullying reported by undergraduates and postgraduates (Major, 2014; Sklar, 2014). The veterinary education literature seems to have less data although there are case reports (Gumley, 1995; Crane, 2015). It would be expected that similar negative learning experiences occur in veterinary education because these professions involve identity formation, role modelling, enculturation, legitimate peripheral participation, communities of practice, and the hidden curriculum (Brigley, 2005; Eraut, 1994; Mossop et al., 2013; Wenger, 1998).

Such negative experiences can adversely affect the mental and physical health of the learners particularly reducing resilience (Fnais, 2014) and increasing burnout (Cook, 2014) in turn reducing the quality of care for patients and client satisfaction (Fried, 2014; Scholz et al., 2013).

This poster considers the factors contributing to negative learning experiences including issues around respect (Leape, 2012), reciprocity (Martin, 2011), and civility (Kaufman, 2014). The conceptual basis for these experiences can be identified in Bourdieu's analyses of the use of power by the elite, conscious and unconscious dispositions, and silences (Bourdieu & Passeron, 1977; Tett, 2015).

The poster demonstrates ways to create more positive learning experiences in veterinary education across the spectrum from the individual, to the team, and to the wider organisation including models of behaviour change (Kilby, 2014), feminist learning strategies (Michela, 2014), principled negotiation and conflict resolution (Lamoureux, 2009), and creating a learning organisation (Hoff, 2004).

Introducing the topic of 'Wellbeing' in the undergraduate veterinary programme at Bristol

Slingsby, L. University of Bristol; Bates, L. University of Bristol; and Baillie, S. University of Bristol

Wellbeing within the practising and student populations is of increasing concern to the veterinary profession. In 2015-2016, 'Wellbeing' as a topic was introduced in every year of the undergraduate programme.

Years 1-4 inclusive had an identical 3 hour seminar comprising an introduction to the concept of wellbeing and the '5 ways to wellbeing', then students worked in small groups to discuss any aspect of wellbeing that interested them and produced a poster, followed by a closing discussion about the importance of wellbeing and preventing mental ill health in the profession. Online surveys were used to assess students' knowledge of the topic, identify where they had sourced their prior information and request suggestions for future teaching. In Year 5, a session on 'Resilience and Wellbeing' was developed and delivered by a recent graduate. Students considered and discussed the balance between job demands, job resources and personal resources (Mastenbroek et al. 2014). Students provided feedback via an online survey.

All sessions were well received and generated much positive discussion both during and afterwards. A group of students across all year groups has self-identified as wishing to work with staff to develop the wellbeing theme; formal timetabled seminars will complement the work of student society welfare representatives and university student support mechanisms. Going forward, year 1 will continue to receive the 3 hour seminar, years 2-4 will receive a different 3 hour seminar which builds on this original session, and year 5 will continue to explore resilience and the transition to practice.

Cultivating self-awareness – a crucial element of resilient mindsets in students

Joyce Wason and Louise Veitch, University of Glasgow, School of Veterinary Medicine

The mental health of veterinary students is an area of increasing concern, and the high prevalence of depression, anxiety and stress among our student body is alarming. There is a need for prevention measures and support services for students and staff.

The School of Veterinary Medicine sought ways to instill coping skills in students to protect against stressors and foster resilience. We also recognized the need to raise awareness of student pressures amongst staff by introducing workshops to enable them to administer “mental health first aid”.

PIPS (Public Initiative for Preventing Suicide) presented resilience workshops to first year students during “blue” January when they are approaching their first set of formative exams. A person’s level of resilience is a very accurate measure of their ability to succeed and to recover from failure; however our level of resilience constantly varies, particularly during challenging times. The course explores behaviors, thoughts and actions that can be developed to increase resilience.

As part of their professional development Third year students attended ‘Mind your Vet’, exploring student issues in depth, creating an awareness of mental health issues and recognizing when they need help. It empowers students to identify a friend who may be distressed, to communicate safely with them and how to get them the help they need.

Student feedback suggests that they were now more likely to ask for help if they are feeling down and much more likely to help a friend.

Resilience in the veterinary profession

Matthew, S.M. Washington State University; Cake, M.A. Murdoch University;
McArthur, M.M. University of Adelaide; and Mansfield, C.F. Murdoch University

Resilience is an essential veterinary graduate attribute, and crucial to longevity and career satisfaction in veterinary practice. Despite this, the factors contributing to veterinarian resilience are currently ill-defined with the majority of research focusing on stress and burnout. Increasing attention is being paid to fostering resilience in the veterinary profession, and this must be underpinned by a thorough understanding of the personal and contextual factors that influence resilience, as well as an understanding of the resilience process.

This poster presents the results of a literature review of studies published on veterinary mental health from 1995 to present (n=59). Most focused on investigating negative health outcomes that indicate a lack of resilience, such as depression, stress, anxiety and suicide. More recent studies have started to focus on positive aspects of resilience such as mindfulness, wellbeing and coping strategies. To build on and extend the results of these studies, this poster presents a preliminary synthesis of key themes emerging from the literature around veterinarian resilience. This encompasses emotional competence, motivation, personal resources, social support, organizational culture, life balance and wellbeing strategies. Overall resilience is identified as a dynamic and multidimensional process involving personal and contextual resources, strategies and outcomes. Focusing on these broader and restorative aspects of resilience will help to restore the balance in the veterinary literature around factors contributing to veterinarian health, ill health and wellbeing.

T3: Veterinary Curriculum

1	PABLO: An online framework and resource for developing veterinary professional practice attributes
2	Emphasising the relevance of epidemiology and statistics to clinical farm animal practice
3	Developing an evidence-based curriculum for veterinary business education
4	Professional Rotations – what do students really want?
5	Anatomy Nuggets
6	Experiential learning through field exercises in the veterinary final year elective on wildlife management
7	Veterinary Extramural Studies in Abattoirs – a cross-sectional study revealing the current situation in Germany
8	Recognising Student Achievement and Success beyond the Curriculum
9	Adopting a reflective approach to shelter medicine
10	Supporting a culture of sustainable feedback within the BVSc programme

PABLO: An online framework and resource for developing veterinary professional practice attributes

Matthew, S.M. Washington State University; Zaki, S. The University of Sydney; and Fawcett, A. The University of Sydney

Professional practice attributes such as leadership, ethics, professionalism, resilience, clinical communication and career management are crucial to veterinary graduate employability, longevity in practice and societal impact. This poster presents the framework for a network of professional practice audiovisual blended learning objects (PABLO) that can be used as interchangeable blocks to support the development of these attributes.

The online PABLO resources are structured around six Professional Practice Pillar Cases that are designed to develop students' professional practice attributes incrementally throughout the veterinary degree, and complemented by topics of common interest to veterinary students. Interviews, scripted role plays, reflective monologues, facilitator guidance, engagement questions, opinion surveys and evaluation questions are combined to create each PABLO module. They can be used interchangeably in self-directed study and/or classroom discussion to engage and support student learning and ongoing development. The flexible and innovative structure of PABLO is designed address limitations of the videos currently available to teach professional attributes: omission of the student perspective; limited accessibility due to licensing requirements; and diminished authenticity due to aging and differing cultural norms.

This project is intended to improve the quality and effectiveness of learning experiences and learning outcomes by enhancing current teaching resources for professional attribute development in multiple courses in the veterinary degree program. The PABLO methodology and structure can also be adopted by other professional degree Faculties seeking to promote independent learning and engaged enquiry in their students.

Emphasising the relevance of epidemiology and statistics to clinical farm animal practice

Tisdall, D. University of Bristol; Reyher, K. University of Bristol

Despite the fact that clinical epidemiology underpins farm animal practice, undergraduate veterinary students often struggle to appreciate the usefulness and relevance of the statistics and epidemiology course, which is delivered during the second year of the BVSc programme at the University of Bristol, limiting their engagement and restricting learning.

There are a number of potential reasons:

- Statistical concepts such as confidence intervals and p-values are more strongly associated with research.
- The application of epidemiological principles to practice is often not obvious or explicit. For example, students may have seen a veterinarian discussing incidence rates of mastitis, the median calving interval or the prevalence of Johnes disease with farmers, but not made the connection with epidemiology.
- Data analysis may not feel like a clinical skill and can seem abstract, artificial and disconnected from practice.

To address these and to familiarise students with software tools such as Interherd (Pan Livestock Services) in preparation for final year farm rotations, a series of interactive, computer-based workshops were introduced, as part of an embedded vertical theme of evidence-based veterinary medicine. Second year workshops were taught by a farm animal veterinarian alongside a veterinary epidemiologist, and reinforced by a group task which required the software. Real-life examples were integrated throughout, as students got to grips with data from the University of Bristol's dairy farm. Fourth year workshops, delivered by the same veterinarian, integrated with herd health teaching. Final year students work independently to apply these skills to investigate herd-level problems during the population medicine rotation.

Developing an evidence-based curriculum for veterinary business education

Jackson, E.L. Royal Veterinary College

There is plenty of convincing evidence to suggest that veterinarians have identified a need for greater and more effective inclusion of business skills in the veterinary medical curriculum. However there are disparate opinions about what the term 'business skills' truly means. The consequence of this is that the fundamental requirements of establishing business teaching within a veterinary medical curriculum remain sketchy.

Nineteen interviews were conducted with UK leaders in veterinary business and evidence from the thematic analysis conducted in NVivo 11 points to the idea that successfully integrating business skills into the veterinary medical curriculum will mean that students learn business principles in non-traditional, non-lecture-style environments with materials inter-twining with clinical teaching. This will mean a significant shift in the delivery of teaching materials and will need a great deal of acceptance from clinical teaching staff. That said, the evidence regarding the importance of business within the veterinary medical curriculum, coupled with increasing competition in the market for first-opinion veterinary services, means that changes in the approach to teaching business may be easier to achieve than ever before.

Professional Rotations – what do students really want?

Pamela E J Johnston*, Katherine G Berman (Bridge referrals, Bristol, UK), Francesco Marchesi*, Noelia Yusta*, Billy Steele*, Lisa Hulme-Moir (Gribbles Referrals, Auckland, NZ), Richard Irvine*, Jane Wild* and Hayley Haining*

*University of Glasgow

While developing a pathology and public health rotation to sit within the new BVMS curriculum we asked ourselves – how do digital natives want to learn professional skills? Our aim was to encompass all aspects of pathology and public health within a 4 week block: 1 week Anatomic Pathology (including 2 infectious diseases tutorials), clinical pathology and public health (PH).

For the Anatomic Pathology component of the rotation initial development work in the previous final year course had centred around a significant percentage of on-line learning, with short periods of face-to-face teaching. With disappointing QA results and poor general feedback from the students this rotation was completely redesigned with RCVS “Day One Skills” at the forefront of our minds. Increasing face-to-face contact in the Post Mortem Room from 1 or maximum 2 afternoons per week to 4 half days per week resulted in a complete turnaround of student opinion.

As part of the PH tuition, the students started tutor led visits to food premises as well as a variety of PBLs tutorials presented by experts in their field.

In the first iteration the revised Public Health and Pathology rotation won “Best Final Year Rotation” from the cohort of final year students.

We will present the QA evidence that confirms what we already suspect. While there is a role for online learning, undergraduates on a professional course greatly appreciate face-to-face contact with experts in the field

Anatomy Nuggets

Corinna Klupiec, Claudia Wolschrijn and Nick Short

This poster describes an innovative project to develop a set of online educational resources or “nuggets” for students of veterinary anatomy. The content comprises existing teaching material integrated with new media, including video and interactive online assets, drawn from the Online Veterinary Anatomy Museum repository. All the assets will be packaged within Moodle books to create a reusable resource that can be published on different platforms with minimum conversion.

In the first phase of the project, academics at OVAM partner institutions were surveyed to determine topics for nuggets to be included in an initial pilot study. Criteria for topic selection included alignment with teaching schedules and applicability across multiple curricula. Nuggets were subsequently compiled on two subject areas: Comparative Topographic Abdominal Anatomy and Cranial Nerves. Veterinary students at five universities (Utrecht, Murcia, Nottingham, RVC, Sydney) were invited to utilise the nuggets as part of their revision and preparation for end of semester examinations (May/June 2016), and to provide feedback about their learning experience via an anonymous online survey. Academics involved in the pilot study will also be surveyed, regarding their perceptions of the pedagogical merit and scalability of the nugget concept.

The poster will summarise lessons learnt from participating academics, as well as reflection by students on the value of the pilot nuggets in supporting their learning. Future development and ongoing evaluation of the anatomy nuggets project will provide insight on repurposing and reuse of Open Educational Resources in veterinary education.

Experiential learning through field exercises in the veterinary final year elective on wildlife management

MacEachern, K.E. University of Glasgow; Verreyne, F.J. Vet and Agric Consultants, Botswana and Jonsson, N.N. University of Glasgow

Experiential learning is defined as the reflection of knowledge gained through practical experience. This type of learning enhances depth of knowledge, increases student motivation to learn and encourages independent thought. We describe the methods used to support experiential learning in University of Glasgow veterinary students in the final year elective in Wildlife and Livestock Management. We will describe the benefits, limitations, assessment techniques and feedback by the students over three years of the running of the elective. Complex issues such as global conservation and human-wildlife conflict are explored by discussion with relevant specialists in these areas. The elective is run over a two month period based in Scotland and Botswana. The students are required to prepare for the field exercises by reading relevant papers and attending small group tutorials. The students visited the university field station and wildlife centres in Scotland. In Botswana the students met with local vets, livestock owners, wildlife officers, representatives of conservation NGOs, staff in game reserves, hunters and local community members in areas adversely affected by wildlife. The students explored the man-made boundaries necessary to keep wildlife and livestock separate and experienced wildlife in their natural habitat. Topics for discussion were introduced each morning, examined in-situ during the day and reflected on each evening. The students gave presentations at the end of each module based on their experiences. Student feedback suggests that the extensive field exercises that immerse the student in the subject area for significant times generate significant gains of understanding and knowledge.

Veterinary Extramural Studies in Abattoirs – a cross-sectional study revealing the current situation in Germany

Maurer, P. Institute of Food Hygiene, Faculty of Veterinary Medicine, University of Leipzig; Lücker, E. Institute of Food Hygiene, Faculty of Veterinary Medicine, University of Leipzig.

As part of the free movement and opening of labour markets within the European Union, the recognition of professional qualifications became more important. The Directive 2005/36/EC describes the minimum requirements concerning the veterinary study and emphasise the importance of practical training in abattoirs (ANON. 2005). Additionally, the Regulation (EC) No. 854/2004 stipulates special professional qualifications for official veterinarians working in the food sector (ANON. 2004). Amongst similar regulations in many other European countries (FISCHER 2010), German senior veterinary students have to complete a 100 hours mandatory extramural study (EMS) in an abattoir during their practical year (9th/10th semester). Under the surveillance of official veterinarians, the students have to train the ante- and post-mortem meat inspection in cattle and pigs and inform about the treatment of slaughter animals. According to the guidelines of the European Association of Establishments for Veterinary Education, an evaluation of the training is required (EAEVE 2012). The objective of this study is to evaluate the current contents of the EMS and the opinions of both veterinary students and official veterinarians. Therefore, a cross-sectional, compulsory, but anonymous survey was conducted. The questionnaire was developed and adopted by senior lectures of all veterinary universities in Germany, Austria and Switzerland.

This poster makes use of the data of questionnaires from 705 senior veterinary students of the University of Leipzig. The results document the scope of presented topics as well as the personal perception of the EMS in the abattoir corresponded between students and official veterinarians.

Recognising Student Achievement and Success beyond the Curriculum

Rutland, C., Mossop, L. and Braithwaite, K. University of Nottingham

Undertaking a veterinary medicine degree is demanding and challenging, yet students frequently seek to enrich their education with extracurricular activities. The University of Nottingham promotes an 'Advantage Award' scheme whereby students are formally recognised for achievements beyond the classroom. To date, the veterinary students have been less able to participate in this scheme due to considerable pedagogical commitments, logistical complications involved in attending the present modules and finding time alongside extramural studies. In order to enable the students to participate in The Advantage Award, three custom built modules have been developed using expertise from within the school, university and with external collaborators.

The modules recognise non-accredited work including volunteering, career development skills and activities and communication skills. These non-academic modules will give extra opportunities for professional and personal development, whilst also ensuring that the desired skills are enhanced but without increasing the workload of the students. The modules are designed to focus on career skills, cultural awareness, volunteering and work experience, whilst simultaneously enhancing overall student experience.

The modules that have been designed to date are: Career Skills for Veterinary Students, Communicating Anatomy through Art and Media, and Effective Volunteering. Enhancing participation in extracurricular activities can enrich personal and professional development and can therefore have a positive effect on employability. This poster illustrates the project through its development stages, from concept through to implementation.

Adopting a reflective approach to shelter medicine

Ruth Serlin, Louise Allum & Jill Maddison Royal Veterinary College, University of London

The Royal Veterinary College created a week long clinical rotation in 2015 to give Final Year students exposure to UK shelter medicine topics and practices and to provide a clinical service to our charity partners, Dogs Trust, RSPCA and Wood Green.

Inherent challenges include:-

1. There is no formal shelter Medicine teaching
2. Students travel round different centres through the week.
3. RVC vets work in one centre and don't travel with the students

We felt these might result in students failing to grasp core topics in shelter medicine and some disorientation and confusion about their learning within it. Many students saw it as just an opportunity to practice neutering techniques with scant appreciation of rich learning opportunities relating to the health and welfare of shelter animals.

We created a unified and integrated learning approach by including online activities aligning to the rotation learning outcomes. Each activity is expected to take 30-60 minutes

Students also complete a personal reflective blog to share with the clinicians. The blog is discussed in the shelters and students create action plans for further learning each day. At the end of the week, the module leader has a feedback session with each student in which they discuss their learning though out the week and strategies for ongoing learning.

The students report their experiences in the shelter medicine rotation as 'excellent'. Clinicians are actively engaged with the concept of scaffolding the students' learning and developing their skills. The poster will present this process and show examples of students' reflections.

Supporting a culture of sustainable feedback within the BVSc programme

Warman, S.; Butterworth, A.; and Baillie, S. University of Bristol

Surveys such as the National Student Survey commonly report low satisfaction scores for assessment and feedback for professional programmes. Whilst much attention has been paid to feedback culture in the clinical environment (Bok et al 2013, Warman et al 2014), there is little information in the literature relating to written feedback on coursework in veterinary programmes.

At VetEd 2015, we reported on a project which aimed to implement sustainable, consistent and effective feedback practices for students' written coursework or directed self-education tasks throughout the programme. For academic session 2015-16, we created templates that required staff to frame feedback as 1-3 points "to commend", and 1-3 points "to consider". Staff training opportunities were provided in the form of written guidelines and workshops.

A review of the feedback on coursework was undertaken in spring 2016. Meetings were held with student year representatives and academic leads for individual pieces of coursework, and examples of coursework and feedback were reviewed. Whilst there was a general improvement in consistency and quality of feedback, this review identified an additional need for more specific, task-focussed staff training and a need to introduce students to their role in the feedback process at an early stage in the curriculum. Unexpected administrative and technology-related challenges will also be discussed.

Bok et al (2013) Medical Education 47, 282-291

Warman et al (2014) Journal of Veterinary Medical Education, 41, 162-171

F(am)1: Technology and e-learning (2)

1	Simulating the management of amphetamine toxicosis in dogs with the VIN Vitrual Clinic
2	Use of augmented and virtual reality in veterinary education
3	Raspberry Pi as a Self-Service Photo Booth
4	Lecture Capture – Is more always better?
5	WhizQuiz- gamifying student feedback
6	Flipped classroom use in veterinary education
7	The use of SNAPIs, Reusable Learning Objects, to promote active engagement within an online post-graduate Veterinary Programme
8	Cardiac Virtual Patients – a new open resource for veterinary education
9	Creation of an e-learning class as tool to acquire soft skills – cross-disciplinary teaching-learning project SUFUvet
10	Learning to Share – A Virtual Example?

Simulating the management of amphetamine toxicosis in dogs with the VIN Virtual Clinic

Balogh, M.; Seaman, N.; Gwaltney-Brant, S.; and Pion, P.D., Veterinary Information Network

The VIN Virtual Clinic (VVC) is an interactive, online environment, where veterinary students can learn the key points to approaching several clinical problems in a simulated, safe environment. This poster focuses on the design and implementation of virtual patients for teaching the management of amphetamine toxicosis in an emergency scenario. In addition to the descriptive poster, detailing the features, workflow, and goals of this simulation, hands on trial of the simulation will be available during the conference.

Use of augmented and virtual reality in veterinary education

Barber, S. University of Melbourne; Hallein, E.; University of Melbourne

Virtual reality (VR) is defined as an artificial world created using computer generated sights and/or sounds that allow a user to interact with it; whereas augmented reality (AR) is an enhanced version of reality where the user can overlay digital imagery on the real world using a device, such as a smart phone camera. There is significant potential to use AR and VR to enhance veterinary education as the hardware and software required for image collection and viewing becomes cheaper and simpler to use. Development of new camera and video gear to collect full 360 degree vision allows capture of 360 degree content and then display on cheap headsets such as google cardboard for VR. New devices on the market including the Oculus Rift and HTC Vive allow further interaction within a VR environment. Adding more interactive elements to this may further improve the visual learning experience. A number of AR devices are also in development stage such as the Microsoft Hololens which allows the overlay of computer generated information in the real world.

This poster presents some currently used VR content such as the 4D virtual farm and 360 video views and potential future applications to bring the field to the lecture theatre. It also demonstrates some potential uses of AR technology to take the lecture theatre into the field.

Raspberry Pi as a Self-Service Photo Booth

Clarkson, E. The Royal (Dick) School of Veterinary Studies

The Raspberry Pi is an adaptable, low-cost computer, about the size of a credit card. It is primarily used to teach computer programming to school children, but it can also be extended by adding environmental sensors, cameras, motors, etc.

Edinburgh University encourages hacking and making projects amongst staff and students, and at the Veterinary School we were interested in learning more about the capabilities of Raspberry Pis, to seeing if they could be used to help our students, or streamline administrative processes.

One requirement we have is for students and staff to upload portrait photos to their online profiles. Recently we have become increasingly reliant on people providing and uploading their own photos. In practice, these photos can be insufficient to identify them, or are uploaded with the incorrect dimensions or file type. A useful project would be to create a self-service photo booth that could take photos for students and staff, and provide image files in the correct formats for uploading to their profiles.

After searching online, I found Chris Evans had shared instructions and code for an animated GIF photo booth he created using a Raspberry Pi*, and adapted his code to serve our purposes. I have created a blog post of instructions*, and shared our project's code on GitHub to allow staff and students to recreate and extend the project.

* Further information: <http://qrs.ly/sb54ard>

Lecture Capture – Is more always better?

Denis Duret, Karen Noble and Alison Reid - School of Veterinary Science - University of Liverpool

The University of Liverpool aims to increase provision of live-recorded lectures in order to meet demands from the Guild of Students. Currently this is an opt-in system, but it is likely that staff will be expected to use it consistently for the academic year 201617. In the School of Veterinary Science, we trialled the “StreamCapture” technology in the academic year 201415 and have expanded our use in 201516.

Staff feedback is mixed, with concerns that lecture capture may affect student attendance and engagement, and may negatively impact learning skills and student well-being. There is sparse literature addressing these concerns and none concerning our specific cohort of high-achieving, highly motivated, conscientious veterinary students. Such students may treat any resource provided as something they must use, and staff are concerned that some students may view recorded lectures as additional workload, rather than a supporting resource. In addition, students may become reliant on this level of support, reducing their development of life-long learning skills. This led to the question: “Is more always better?”

This project looked at students in years 1 and 2 of the 5 year BVSc course, using focus groups and questionnaires to investigate two major research questions:

“How does provision of recorded lectures impact student well-being?”

“How does provision of recorded lectures impact student learning?”

Results from the two years are presented, and compared to give an indication of any differences in their use of this resource as students gain experience of the course and their own learning approach.

WhizQuiz- gamifying student feedback

Krekeler, N. The University of Melbourne

Lacking and untimely feedback is an issue raised commonly in student experience surveys.

Large class sizes prevent the increase of individual feedback and complicate providing immediate feedback to students. Innovative strategies to provide quality summative and formative feedback to large cohorts are required. As a means of providing a versatile engaging feedback tool for students, a gaming app is being developed.

Students will download the app to their mobile device, sign up and can challenge other student users for a game. Students alternate picking topics from a choice of three randomly assigned subjects and will be answering four questions per round. The questions will be set in a multiple choice format. Pictures, figures, videos, audio files or diagrams can be used in the questions.

Each question is only displayed for and must be answered within 10 seconds. This eliminates the possibility of accessing outside assistance. Visual feedback to responses will be given.

At the end of the game it is revealed to the students how they have performed in comparison to their opponent and also in comparison to other players that have answered those questions.

Statistics tracking will be incorporated, which will enable staff to collect data on student engagement and participation as well as data on learning analytics and question performance statistics. Straightforward upload of question packages will be facilitated so that changes to content can easily be undertaken.

The prototype app will be demonstrated at the symposium to any interested participant.

Flipped classroom use in veterinary education

Matthew, S.M. Washington State University; Schoenfeld-Tacher, R.M. North Carolina State University; Danielson, J.A. Iowa State University; and Warman, S.M. University of Bristol

Flipped classroom is an instructional approach where students engage in significant pre-class preparation to learn fundamental concepts before engaging in active learning activities in class. Common formats for pre-class preparation include watching pre-recorded lectures or video vignettes, engaging in online activities and reading textbook chapters. These activities prepare students to engage with the material at a deeper, integrative and applied level in class, through exercises such as problem-solving, group work, discussion and quizzes. Little is known about the extent and way in which flipped classroom techniques are used in veterinary education internationally, and the drivers for this use.

This international study investigated educators' use and perceptions of the flipped classroom method to teach veterinary students. A written survey (n=165) was used to collect demographic data and investigate respondents' familiarity with and use of flipped classroom techniques, together with their views of the benefits and barriers to implementing this instructional approach. Participants included veterinary faculty members and administrators from the USA, UK, Australia, Europe, and Canada.

Results indicated that using a flipped classroom technique was generally perceived to be of benefit to learners by allowing for more efficient use of time and greater student engagement. The main barriers to implementing a flipped classroom were seen as student resistance, lack of faculty training in how to use the method effectively, and student and faculty workload. No significant correlations were identified between familiarity, or use of, flipped classroom techniques and respondent demographics.

The use of SNAPIs, Reusable Learning Objects, to promote active engagement within an online post-graduate Veterinary Programme

Carty, M. Gallagher, M. O'Neill, E.J. University College Dublin

Background: Active engagement and the provision of prompt feedback are key components of good educational practice and effective teaching. This poster presents the development of reusable learning objects (RLOs) for an online graduate certificate programme in small animal medicine, as a method of promoting active, self-directed learning with formative feedback.

Approach: The RLOs developed were SNAPIs (small nuggets applied practically to inform), short clinical vignettes that combine clinical commentary with a combination of structured, formative single best answer or true / false questions and feedback. The material was developed using Articulate Storyline, allowing the construction of reusable, stand-alone resources. The SNAPIs were integrated into the VLE and released on a gradual basis over the course of the programme to supplement core learning materials.

Findings: The SNAPIs proved very successful during this pilot cycle of use within the programme. They were popular with students and facilitated the provision of expedient, formative feedback, which in turn assuaged the constraints of limited staff resources.

Summary: The provision of clinical material with written, pictorial and / or video components, formative feedback and references / links for self-directed learning, incorporates many aspects of good teaching practice for adult learners. It appeals to a variety of learning styles, engenders active learning and allows flexibility in usage, building on student prior learning. The use of varied clinical materials such as radiographs or blood results, allows the generation of authentic questions based around clinical problem solving and higher order skills; all key to the promotion of meaningful, deep learning.

Cardiac Virtual Patients – a new open resource for veterinary education

Sonya Powney, Nick Short and Virginia Luis Fuentes, Royal Veterinary College

Virtual patients provide students with a safe environment to work through a clinical case and practice making clinical diagnosis and treatment plans whilst receiving feedback. They are increasingly used in medical education as an effective means of providing exposure to clinical teaching material for both undergraduate and CPD learners. However, the development of virtual patients or electronic cases has been limited in veterinary education.

This poster describes a series of three interactive cardiac virtual patients which have been developed at the Royal Veterinary College. These have been developed using Adobe Flash and provide a logical approach to clinical problem solving. The virtual patients were originally created in English and have now also been translated in to French, Spanish, German and Italian. These virtual patients have involved significant amounts of clinical work to develop as well as technical expertise to construct. They have been piloted with clinical students at the RVC and general practitioners.

The poster will summarise the work involved in creating the virtual patients, the feedback received from users and lessons learnt for future development. Vet Ed 2016 will provide a significant new opportunity for the veterinary education community to have Open Access to all three cases for use by their own students.

Creation of an e-learning class as tool to acquire soft skills – cross-disciplinary teaching-learning project SUFUvet

Raida, A. C. Institute of Food Hygiene, Faculty of Veterinary Medicine, University of Leipzig; Lücker, E. Institute of Food Hygiene, Faculty of Veterinary Medicine, University of Leipzig; Münster, S. Media Centre, Technische Universität Dresden; Maurer, P. Institute of Food Hygiene, Faculty of Veterinary Medicine, University of Leipzig

Students as well as educators require the encouragement of so-called soft skills in addition to pure knowledge acquisition (Shakir, 2009). Within this context, the orientation of European higher education has changed in the course of the Bologna process from content-based to competence-based teaching (Bergsmann et al., 2015).

For the achievement of these competencies, the German Federal Licensure Act for Veterinarians stipulates no special time quota. Therefore, the objective of the project is the development and training of the students' soft skills by using a problem-based learning scenario, which is integrated into elective classes and projects.

SUFUvet is a cross-disciplinary pilot project between the Faculty of Veterinary Medicine of the University of Leipzig and the Technische Universität Dresden. Several groups of undergraduate veterinary students (4th, 8th and 10th semester) and bachelor students of media informatics are involved. Both together, they create a multimedia, 3D visualised e-learning class.

By (1) reflecting their needs as learners and switching into the roles of teachers or designers and (2) applying different frameworks (e.g. SCRUM), the authors expect to train the students' planning behaviour, personal responsibility and cooperation capability (translated from German: Planungsverhalten, Eigenverantwortung, Kooperationsfähigkeit).

Our poster presents the schematic structure and aims as well as the current state and progress of SUFUvet.

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Learning to Share – A Virtual Example?

Alastair Spark and Nick Short, Royal Veterinary College

The Innovative Food Systems Teaching and Learning (IFSTAL) project is a HEFCE funded three year programme to improve post-graduate level knowledge and understanding of the food system. It is lead by the University of Oxford and involves five leading UK universities with expertise in food systems. The Royal Veterinary College provides expertise in the veterinary sector and has also taken the lead in developing a common virtual learning environment (VLE) for the project.

A key component of this project has been the need to provide a common online space where postgraduate students, teaching and research staff can collaborate between the institutions. Using Learning Tools Interoperability (LTI) tools the site seamlessly integrates with five different VLE platforms on Moodle, Sakai and Blackboard. This has enabled more effective sharing of content including streamed and recorded lectures from leading subject experts, collaborative study spaces and extensive online resources.

Institutional collaboration is not new of course but this initiative has gone one step further by creating a virtual environment to add value to the partnership. After the first year there have been examples of good practice and also many lessons learnt which will be presented through this poster. It also provides some pointers as to how veterinary schools might be able to share some of their teaching material in years to come?

F(am)2: Scholarship, CPD and Pot Pourri

1	I'm not just a vet, I'm also an educator!
2	An investigation into the impact of blended learning postgraduate study on veterinary professionals
3	Learning and Sharing: Regional workshop for veterinarians and technicians in Africa and the Middle East
4	Development of a training programme enabling vets to work more effectively with visually impaired clients
5	Vexed vet nurses; who do they ask for help and are we ready?
6	Placements and students; are we doing it right?
7	"Growing our own" – development of a teaching internship programme
8	Excellence in social accountability by a veterinary school: an oxymoron or a zeitgeist?
9	Antimicrobial Resistance Awareness – Engaging with 'One Health' beyond the curriculum

I'm not just a vet, I'm also an educator!

Brown, G. Higher Education Academy, UK

Veterinary educators are dual professionals; professional teachers in HE and professionals within their own discipline. Clinician, tutor, lecturer, doctor, confidant, mentor, leader, innovator: a veterinary educator plays many different roles that all contribute to their professional identity. Yet, a full day teaching or supporting the curriculum often means there is little or no time left for personal development and scholarship.

The Professional Standards Framework (PSF) identifies the diversity of higher education teaching and support roles. Written from the perspective of the practitioner, this national framework comprehensively recognises and benchmarks teaching and learning support roles within HE. The Higher Education Academy (HEA) makes a distinct case for veterinary education so that not only can HE staff be recognised, but vets in practice and others involved in veterinary education can also make their case for HEA Fellowship, which serves as an internationally recognised award.

This poster presentation highlights opportunities for all those involved in veterinary education to evaluate their professional practice, evidence success, and demonstrate impact within the veterinary environment.

An investigation into the impact of blended learning postgraduate study on veterinary professionals

Chapman-Waterhouse, E. Harper Adams University; Phillips, D. European School of Veterinary Postgraduate Studies

Whilst it is accepted that there are a number of consequences to engaging with learning, what do they look like for part time remote postgraduates undertaking vocationally driven continuing professional development (CPD)? Following on from the work of May and Kinnison (2015) who investigated the impact of veterinary continuing professional development on clinicians and their practice, the aim of this study was to explore the impact of blended learning format postgraduate study on veterinary professionals through 18 personal reflective reviews of learning.

Early narrative analysis of the reviews, written by students who were undertaking a 20-credit level 7 reflective practice module, indicated that students perceived elevated professional recognition to be a primary driver for engagement with this type of CPD. The reviews also indicated that students were using reflective practice beyond the classroom to initiate self-improvement in the work setting, illustrative of transformational learning theory as defined by Mezirow (1991). Whilst the authors concur with Barr (2015) that a range of CPD formats are needed across the sector in order for busy professionals to engage in a mode that best suits their needs, our students recognised the positive impacts that blended learning format postgraduate study has had on their approach to practice.

Learning and Sharing: Regional workshop for veterinarians and technicians in Africa and the Middle East

Davies, H., Society for the Protection of Animals Abroad (SPANA), Compostella, F., Society for the Protection of Animals Abroad (SPANA), Gath, C., Society for the Protection of Animals Abroad (SPANA), Packer, E., Society for the Protection of Animals Abroad (SPANA)

The Society for the Protection of Animals Abroad (SPANA) held their 5th annual regional workshop in Morocco in April 2016. Designed to provide continued professional development and sharing of knowledge to their veterinary and technical staff members from their core country projects across Africa and the Middle East. This meeting is also important for SPANA teams to meet one another and share experiences, thus building a greater support network within the SPANA community.

The workshop ran over two days and was split into two streams; one for veterinarians and one for technicians. Each day comprised half day of lectures in a conference centre, and half day of practical sessions in the Marrakech SPANA equine hospital. Delegates were invited to suggest topics relevant to their everyday work for inclusion in the workshop. Veterinary topics included: approach to the lame horse, infectious diseases, urinary tract disease, and common medical and surgical conditions of the foal; whereas topics for technicians focused on biosecurity, care of the hospitalised/post-operative patient, sterility and care of surgical instruments. The UK SPANA veterinary team along with specialist guest speakers provided the lectures and practical sessions.

In order to promote sharing of knowledge and experiences, delegates were invited to present posters on 'interesting cases treated by SPANA over the last 12 months' (veterinarians) and 'innovative ideas developed within your SPANA centre' (technicians). The objectives of the poster sessions were: to encourage delegates to develop their presenting skills, confidence and share knowledge and ideas.

Development of a training programme enabling vets to work more effectively with visually impaired clients

Fraser, M, Girling, SJ, Girling & Fraser Ltd., Perth.

There are 4800 working guide dogs in the United Kingdom, all of which will visit a veterinary practice at least twice a year for health checks. Work by Hamood and others (2014) showed that veterinary surgeons require a high level of communication skills, but most to date most work has focussed on communicating with clients that do not suffer from a disability. Previous work by Fraser & Girling (2016) highlighted that it is important for all veterinary staff to have an understanding of visual impairment, be able to communicate well with a visually impaired client.

With this in mind an online course was developed in association with Guide Dogs, Vets Now Ltd., and Girling & Fraser Ltd. This was delivered over 2 weeks to qualified veterinary surgeons undertaking the Vets Now Cutting Edge programme. The course covered sight loss in people, the work of Guide Dogs, sighted guiding and specific veterinary aspects including dispensing medication, providing instructions for home care and what guide dog owners expect from their veterinary practice.

Course feedback highlighted a number of factors: Firstly, that it was useful and should be included in undergraduate training; veterinary staff need to think about the challenges that owners face and incorporate that into any home care plans; and that further training programmes / materials specific to veterinary practice should be developed to support veterinary staff in working with visually impaired clients.

Vexed vet nurses; who do they ask for help and are we ready?

Hotston Moore, P. University of Bristol.

A personal tutor is both rewarding and challenging. Pastoral care is an integral part of an academic staff member's role. In the University of Bristol Veterinary Nursing undergraduate course, both academic and clinical staff are used as personal tutors. Consideration is given to both the needs of the student; familiarity, accessibility, clinical relevance and the qualities of the personal tutor; time available, perceived approachability, seniority and willingness to participate. Challenges are present in selecting a sufficient broad range of staff as personal tutors compared to fewer staff having a greater number of tutees.

Indeed, the literature demonstrates that students choose to seek help and advice from a number of differing sources during their time at University; some of which are qualified to help and some are not. The role of the personal tutor should be made clear and not confused with that of professional help that is available to students in UK Universities. With Veterinary Nursing primarily a female dominated profession and Veterinary Medicine becoming more so, consideration must be given to the literature demonstrating that females are more likely to seek help than males. Are we prepared for this and how do we manage it?

Over the past two years at the University of Bristol, data has been kept to record how many times each personal tutor communicates and meets with their veterinary nursing tutee. This is invaluable in planning for future tutor/tutee pairings.

This poster considers the challenges facing personal tutors and the students seeking help and advice.

Placements and students; are we doing it right?

Hotston Moore, P. University of Bristol

Both Veterinary Science and Veterinary Nursing undergraduate programmes require a mandatory period of time spent in work based placement, however there are differing regulations surrounding each. The RCVS regulatory body monitors placements as part of all such programmes; the placement requirements of which differ greatly. Interesting comparisons are made in how these are managed practically and how each have differing quality assurance measures. Universities develop theory, skills and knowledge to promote active learning within the clinical veterinary environment.

Consideration is also given to 'that which cannot be taught'; noting from others qualities and skills such as professional behaviours, building resilience and emotional intelligence. The literature shows that students learn more effectively in a programme where theory is related to professional skills and knowledge; being on placement in a clinical setting consolidates learning and maintains the learners' motivation.

Students are able to set their own placement learning goals with on-line tools which are used during placement. Students are encouraged to reflect upon both their learning and experience via this tool. A partnership of academics, clinical staff and students form where collective responsibility is shared to educate and mould the future of the profession.

This poster considers examples of 'best practise' for learning within placement which are seen within the veterinary nursing undergraduate course at the University of Bristol; with the integration of demonstrating and demonstrating back, reflective practise, the monitoring of students on placement, standardisation of the student experience and the quality assurance of such.

“Growing our own” – development of a teaching internship programme

Liz Mossop and Kate Cobb, School of Veterinary Medicine and Science, University of Nottingham, UK

Excellent quality teaching is an essential element of veterinary curricula and there is an increasing need for veterinary qualified individuals to develop the skills to fulfil this requirement of modern veterinary schools. Excellent clinicians do not automatically become excellent teachers and training must be provided to develop a new generation of clinical veterinary teachers. These teachers must excel in delivery but also have a comprehensive understanding of curriculum design and the principles of assessment.

The School of Veterinary Medicine and Science, University of Nottingham has developed a unique “Teaching Internship” programme, which offers a stipended post to qualified veterinary surgeons or intercalating veterinary students leading to the award of PGCert (Vet Ed). This programme offers experiential learning alongside core theory delivery and an educational research project of 12 months duration. It aims to encourage recently qualified veterinary graduates or undergraduates into a teaching career, allowing progression along a defined career route to become a highly skilled veterinary educator.

This poster will describe the programme and progress to date with delivery.

Excellence in social accountability by a veterinary school: an oxymoron or a zeitgeist?

Robbé, I.J. Memorial University, Newfoundland, Canada, and Dundee University, Scotland; and Nicholson, C. Memorial University, Newfoundland, Canada

In recent years momentum has grown in the United Kingdom, Canada and elsewhere in support of the concepts of social accountability by medical schools leading to the 2010 statement “Global Consensus for Social Accountability of Medical Schools” <http://sedem.org/GlobalConsensus.pdf>. Social accountability involves the medical school’s engagement with their communities to address the priority health needs of patients and of communities.

Standards of excellence in social accountability have been developed by the Training for Health Equity Network <http://thenetcommunity.org> and the ASPIRE project www.aspire-to-excellence.org.

Standards require that social accountability –

- is a prime directive in the medical school’s purpose and mandate
- influences the programmes for admissions, undergraduate and continuing professional development, and research
- enables the graduates and the school’s health service partnerships to have a positive impact on health care and the health of its communities.

It has been suggested that veterinary schools could be recognised for excellence in social accountability against these standards. Could such recognition be a zeitgeist consistent with the RCVS accreditation standards for veterinary degrees (2015) and issues discussed at previous Veterinary Education Symposia including public health, zoonoses (2013), anthrozoology, the One Health Initiative, inequalities (2012), professionalism (2011)?

However, animal health is determined by environments beyond veterinary care including biology, lifestyle, physical, and socio-economics. Should our veterinary schools be involved in these environments through community engagement in order to improve animal health in addition to meeting the burgeoning demands for teaching and research? If not then excellence in social accountability is an oxymoron for a vet school.

Antimicrobial Resistance Awareness – Engaging with ‘One Health’ beyond the curriculum

Wild, I., Jones, D., Jarvis, K.-L., Winchcombe, E., Blanchard, A., Jones, M.A. and Töttemeyer, S. University of Nottingham

Antimicrobials are essential in veterinary and human medicine. However, many of the current advances in human and veterinary medicine are at risk due to the rapid occurrence and spread of antibiotic resistance. Without effective antibiotics, even minor surgery and routine operations could become high risk procedures if serious infections can't be treated. The World Antibiotic Awareness Week initiated by the WHO aims to encourage best practices to avoid further emergence and spread of antibiotic resistance. As part of that the Schools of Veterinary Medicine and Science and Biosciences at the University of Nottingham were holding joint AMR awareness events on the 18th of November 2015. These events were supported and run by postgraduate and undergraduate students from the Veterinary, Microbiology and Next Gen Scientists Outreach Societies. The events included student led activities at local primary schools, an on-site quiz, and information on AMR research within the schools and on current good antimicrobial stewardship policy. As part of both, school outreach and on-site events, we also partnered with University College London to carry out a 'Swab & Send' hunt for new antimicrobial producers. The outcomes of that even were fed back to students via a prize giving ceremony for the most interesting antimicrobial producer and to staff via a staff meeting presentation. The aim was to inspire an interest in AMR and microbiology in both potential and existing university students.

F(am)3: Teaching Methods

1	Taking an Appreciative Inquiry approach to evidence sustainable education in veterinary teaching
2	Using Cases in Veterinary Clinical Pathology Teaching: Student Study Strategies
3	Diversifying Pedagogical Methods for Teaching Veterinary Clinical Pathology
4	The Hand for Equid Welfare in Practice and Education
5	Creative surgeons, is that such a good idea?
6	Teaching veterinary medicine and veterinary nursing undergraduates together changes their perceptions of each other
7	Elective scientific project works – retrospective cross-sectional study ProVe among German veterinary students
8	Professional Behaviours and Breaking Bad (news)
9	Postgraduate peer tutors supporting academic skills in online programmes
10	Learning spaces: On the screen, down the farm, in the prep room

Taking an Appreciative Inquiry approach to evidence sustainable education in veterinary teaching

Boyd, S. The Royal (Dick) School of Veterinary Studies, University of Edinburgh

This poster will provide an overview of a project undertaken to evidence sustainable education practices in veterinary medical teaching.

Veterinary medicine is well placed to lead on sustainable concepts such as ecosystem health and socio-economic impacts. Social responsibility and sustainability attributes are outlined in the “Day One” competencies stating “... veterinary surgeons must take account of the possible impact of their actions beyond the immediate workplace, eg, on public health, the environment and society more generally”¹.

Beyond this, sustainable education practices invite teachers to reflect on the pedagogy underpinning the teaching and learning processes to encourage increased awareness of issues from both a local and global perspective. Teaching methods such as reflective accounts, debates, student-led learning and work-based learning are core to the undergraduate curriculum. Additional understanding of key principles in ethics and welfare, and skills to cope with uncertainty and risk are embedded in the professional skills teaching.

Students are increasingly aware of the issue of sustainable development and questioning these concepts from the perspective of their professional development. While they are aware of the teaching methods and topics, the importance of these in developing sustainable future practices is not explicit in many cases.

The Appreciative Inquiry (AI) model² provides a practical framework to support discussion on ways to make these concepts and practices explicit to students and staff. The project is in four parts: curriculum mapping (appreciation of what we do), discussion (meetings to discuss mapping and opportunities), design (adapting and making explicit), and future-planning (ongoing innovation).

Using Cases in Veterinary Clinical Pathology Teaching: Student Study Strategies

Fernandez NJ, Wagg CR, Warren AL. University of Calgary Faculty of Veterinary Medicine.

Case-based learning is widely used to help students develop diagnostic reasoning skills. We use a modification of this method to teach clinical pathology at the University of Calgary Faculty of Veterinary Medicine, with mini-lectures and case discussion during class. Study strategies when using cases for learning veterinary clinical pathology have not been investigated.

Students voluntarily completed 2 online surveys while registered in the course: one following the first of 2 midterms and one before the final exam. Surveys included multiple choice and open-ended questions on the study strategies used. McNemar's test and Wilcoxon signed rank tests were used to detect any differences in strategies over time. Fisher's exact tests were used to examine the association between strategies and grades in quantiles.

The most frequently reported study strategies were working through cases individually before the midterm (mean of both surveys= 74%); reviewing lecture slides before the midterm (62%); and reading suggested material from the textbook before the midterm (54%). The most helpful strategies were attending class regularly (96% reported "helpful" or "very helpful"); reviewing lecture slides (94%); working on cases individually (92%); and participating in classroom discussion of cases (92%). Students reported similar strategies in the middle compared to the end of the course. There was no significant association between strategies and grades.

Working through cases and attending class regularly were important study strategies for students in this course. However, study strategies did not change significantly with increasing familiarity with case interpretation, nor did they vary with performance.

Diversifying Pedagogical Methods for Teaching Veterinary Clinical Pathology

Gilroy, C. Atlantic Veterinary College, University of Prince Edward Island, Charlottetown, Prince Edward Island, Canada.

There are many challenges instructors can encounter while teaching veterinary students. This is especially true in the first 2 years of the program when students may become weary of learning core knowledge but may not appreciate the clinical relevance of this material. Some of the challenges include various learning styles of students, changing student demographics, a large volume of teaching material and the lack of formal training in teaching for many faculty.

After teaching the biochemistry section of the 2nd year clinical pathology course for the first time, it became apparent many changes were needed to engage students and assist with teaching of this topic which many students find challenging. This realization was based on student course evaluations, as well as the author's experiences at the University of Prince Edward Island Faculty Development Summer Institute on Active Learning and Teaching and an educational workshop at the American Society for Veterinary Clinical Pathology (ASVCP).¹

Changes included adopting a "Scaffolded Active Learning"² approach allowing for active student engagement through case discussion and repetition of key concepts following traditional delivery of core material using lectures. Active learning activities utilized include team based clinical case discussions, clicker response technology to gauge student understanding, a golf ball lottery for choosing teams to answer questions and individual and team quizzes. After implementing these changes, the feedback from students indicated a more positive learning environment that provided a venue to help them develop their diagnostic reasoning skills.

1. Danielson J, Bender H, Lorsch J. How to jazz up those boring old lectures: a short course on principles of educational theory in practice. ASVCP Pre-meeting Workshop, Baltimore, Maryland. October 30, 2010.
2. May SA, Silva-Fletcher A. Scaffolded active learning: nine pedagogical principles for building a modern veterinary curriculum. J Vet Med Educ. 2015; 42(4): 332-38.

The Hand for Equid Welfare in Practice and Education

Hernandez-Gil M. The Donkey Sanctuary - National Autonomous University of Mexico Joint Programme;

Brown K. The Donkey Sanctuary UK; Blakeway S. The Donkey Sanctuary UK

Equids make a valuable contribution to humanity by satisfying social, cultural, physical, emotional, mental and economic needs. However, their performance depends greatly on their welfare. Whilst it is recognized that the welfare of the animal is a key factor in the management of a patient, veterinarians often do not take the time to assess and discuss the animal's welfare with the owners. Early detection of a welfare problem, allows a quicker intervention and a better outcome for the animal and, in due course, for the humans relying on them. The aim of this paper is to share experiences of The Donkey Sanctuary – UNAM Programme using The Hand, a simple but structured method integrating behavioural, physical and clinical aspects, as a tool to assess equine welfare in practice and as a framework to develop educational programmes for veterinary practitioners and students, who eventually will promote welfare and performance at their areas of work. The palm of The Hand represents the life of the equid, its husbandry and its working practices, and the five fingers represent the main welfare indicators: 1) human-equid interaction; 2) nutritional state; 3) wounds; 4) lameness; and 5) disease; always looking at the equid in a holistic way. Through this method, in practice, we can rapidly assess the primary welfare problems to reduce root causes of serious clinical problems, becoming better veterinarians; whilst, in education, we can prioritize where and how we develop veterinary education programmes, to alleviate specific welfare problems of equids contributing to human livelihoods.

Creative surgeons, is that such a good idea?

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Mette Berendt, DVM, PhD, Professor, Department of Veterinary Clinical and Animal Sciences, Faculty of Health Sciences, University of Copenhagen

Nils Toft, MSc, PhD, Professor, National Veterinary Institute, Technical University of Denmark

Lene Tanggaard, Cand. Psych., PhD, Professor, Center for Qualitative Studies, Aalborg University

In veterinary surgical education, we tend to teach surgical procedures by providing students with a 'recipe' of how to perform, resulting in surface learning and students that cannot perform adequately when facing unfamiliar anatomy or surgical complication. The aim of this study was to investigate if the application of an active, inductive educational method to a surgical course would encourage deep learning and foster reflection, creativity and self-efficacy in students.

Fifty-two 4th-year students attending a Small Animal Surgery course were randomly divided into 3 control- and 3 intervention-groups. The control groups participated in a traditional lecture on ovariohysterectomy. Intervention group students were asked to figure out for themselves how to perform the ovariohysterectomy, and were provided with anatomical drawings, plasticine, paper, crayons, etc. After ½ hour their solutions were discussed in plenum. Both groups were assessed while performing an ovariohysterectomy on a SimSpay model, and were asked to come up with a solution to a hypothetical surgical complication. Seventeen semi-structured interviews were conducted with intervention group students.

The intervention group performed significantly better on the SimSpay and needed significantly lower levels of help to come up with a solution to the hypothetical complication than the control group. Interviews revealed that students considered the challenge a useful educational tool because it forced them to reflect, improved their self-efficacy and made them realize that they were able to construct a surgical procedure from prior knowledge, skills and experiences. Thus, using creative teaching seemed to foster creativity and deep learning in future surgeons.

Teaching veterinary medicine and veterinary nursing undergraduates together changes their perceptions of each other

Langridge, A; and Silva-Fletcher, A. Royal Veterinary College, University of London

The aim of this study was to discover whether teaching veterinary medicine and veterinary nursing undergraduate students together changed their perceptions of each other. The intervention study design included an inter-professional education (IPE) session with a pre- and post- evaluative questionnaire. Third year veterinary medicine and first year veterinary nursing students took part in one of three identical sessions. Each session consisted of near equal numbers of 6 veterinary medicine and 6 veterinary nursing students, with a total of 31 students in the study (15 veterinary medicine and 16 veterinary nursing). The pre- and post- intervention questionnaires sought to explore the students' perceptions regarding each other, IPE and self-assessment of professional and social identity. This included a 'word search' design. Students were given a mix of positive and negative words and asked to select 4 words which best described how they perceived the other group and which they believed the other group would select to describe their own group. Pre- and post- focus groups were also conducted with each professional group (n=5 per group). Significant differences in perceptions on professional and social identity were noted between pre and post IPE intervention. Most interestingly, the evidence of self-perception followed professional and social stereotyping. Both groups of students noted IPE as relevant and important. Focus group data strongly supported student perceptions as gauged by the questionnaire.

Elective scientific project works – retrospective cross-sectional study ProVe among German veterinary students

Maurer, P.¹; Schulz, A.¹; Stolze, L.¹; Vahlenkamp, T. W.²; Lücker, E.¹

¹ Institute of Food Hygiene, Faculty of Veterinary Medicine, University of Leipzig;

² Dean of Studies, Faculty of Veterinary Medicine, University of Leipzig

The German Federal Licensure Act for Veterinarians contains a certain time quota for elective classes. Each of the five German Veterinary Faculties has a different interpretation of this quota and develops various didactic formats. So-called scientific project works (sPW) are implemented at the Veterinary Faculty of Leipzig only. They take minimum 98 hours and have to be completed until the 11th semester. There are hardly any guidelines regarding the qualifications of either student or supervisor, the topic, the method and the finalisation. The objective of the study ProVe is to evaluate the sPW as didactic framework. Therefore, a retrospective and a prospective cross-sectional study design were performed.

In a first step, the data of 549 vouchers were evaluated. The respective students (83.6% female, 16.4% male) graduated between 2013 and 2016. The sPW took place in all institutes and clinics of the Faculty of Veterinary Medicine. Most often, students chose the Institute of Animal Nutrition, Nutrition Diseases and Dietetics (14.9%, n=82), the Institute of Food Hygiene (11.7%, n=64) and the Clinic for Birds and Reptiles (9.7%, n=53). The average duration is 102.4 hours (n=533 evaluable vouchers).

This poster considers the retrospective part of the project ProVe and illustrates the data of the 549 vouchers.

Professional Behaviours and Breaking Bad (news)

Jeffery, A Bristol University and Orpet, H Royal Veterinary College

Veterinary and veterinary nursing students are required to complete periods of their training/course within a work placement. They are required to demonstrate development in certain professional behaviours and attitudes. It appears that there are a number of differences between how this is monitored for both veterinary nursing and veterinary students.

The aim of this workshop is to examine both these professional behaviours and attitudes by reviewing different tools for measuring these. In addition, we will investigate the mechanisms by which placement supervisors are prepared for students. We will also consider, through scenarios, how we should be giving feedback to help the students development. Whether this feedback is left to the end of placement or whether a staged approach might be more beneficial to both student and practice. Part of the process of effective and constructive feedback relies on the placement supervisor having the skills in order to do this, avoiding unconstructive and damaging criticisms. This workshop will investigate mechanisms by which placements are prepared for placement.

Alternatively (or in addition!) we would like to present a poster on the development of the behavioural tool for assessment of professional behaviours.

Ref: Mossop, L and Cobb, K. 2013, Teaching and Assessing Veterinary Professionalism. JVME Sep 2013, Vol. 40, Issue 3, pp. 223-232

Postgraduate peer tutors supporting academic skills in online programmes

Paterson, J. E. & Boyd, S. R(D)SVS, University of Edinburgh

Three year ago, the R(D)SVS initiated an online, distance-learning postgraduate peer tutor project with two core aims. Firstly, to develop student online postgraduate students' academic skills (e.g. group facilitation and learning support) and secondly, to enhance the support available to the increasing numbers of online, distance-learning students (e.g. facilitating more live sessions and providing postgraduate study advice). The scheme has now a core part of the School's online programmes. To be a peer tutor, students must complete an online training course (culminating in the running of a mock session), and conduct peer support sessions (in a minimum of pairs) using appropriate tools on topics relevant to the particular course or cohort. The peer tutor team are supported by two academics who also run debrief sessions. The peer tutors can optionally apply for AFHEA. Feedback from staff, peer tutors and students involved indicate that the project is successful in improving the student experience through enhanced support, a sense of community, and opportunities to develop graduate skills in tutoring. Typical comments from students attending the sessions are "Nice and informal. Comforting to be able to share experience, opinions, thoughts with students who have been through it before." The peer tutors spoke of "giving something back" and "It was satisfying hearing that the students has learned something that would help them to improve their academic skills and hopefully improve their grades... I enjoyed liasing [sic] with the course lecturers in order to work out how best to support them".

Learning spaces: On the screen, down the farm, in the prep room

Robinson, P. A. – Harper Adams University

Temple (2008) reviewed the literature on learning spaces in Higher Education, and suggested that it was an under-researched topic; it remains so. This paper seeks to help address that deficiency by presenting the findings of a qualitative study on learning spaces with undergraduate students on animal-related degree courses at Harper Adams University, the largest specialist land-based academic institution in the UK.

Based on semi-structured interviews and focus groups with predominantly agriculture and animal science, veterinary nursing, and bioveterinary science students, the study elicits the in-depth opinions of students on the physical and virtual spaces where they are taught, and analyses how this affects their learning experience. It focuses particularly on the interplay between classroom teaching and the farm and vet clinic as both formal and informal learning spaces, and how these sites of learning complement one another in practical and vocational degree courses.

The findings demonstrate the importance of students being able to 'see' animals outside of the physical and virtual classroom environment to build upon the theory of animal health and welfare presented on the screen. It also emphasizes the role of the teacher (both expert and lay) in making spaces where students are inspired and fully engaged in learning. The paper is of relevance to all involved in veterinary and agricultural education.

Temple, P. (2008) Learning spaces in higher education: an under-researched topic. *London Review of Education*, 6, 229–241.

F(pm)1: Clinical Skills

1	The OVH App: An interactive approach to preparation and improved surgical competence
2	Rabbits in primary care education: insights from a surgical clinic
3	Workshops for veterinarians and technicians establishing clinical skills laboratories in Africa and the Middle East
4	Optimising Animal Management Practical Skills Teaching
5	“Show & avoid”: using custom-made videos highlighting common errors to improve student performance of veterinary nursing practical skills
6	Effects of integrated clinical skills lab training in small animal medicine rotations at the University of Veterinary Medicine Hannover
7	Use of a simple castration simulation model in teaching veterinary students
8	Educating correct injection techniques: the risk of iatrogenic sciatic nerve damage in dairy cattle
9	Canine ovariohysterectomy task analysis: Step guide to the procedure
10	A skills laboratory for both veterinary and veterinary nursing students – trends and triumphs in the first year after opening
11	What happens when you open a purpose built Clinical Skills Centre in an established vet school and allow students 24 hour access to it?

The OVH App: An interactive approach to preparation and improved surgical competence

Annandale, A. Faculty of Veterinary Science, University of Pretoria and Pretorius, H. Mind The Gap Group, Johannesburg

In order to better prepare clinical year students at the Faculty of Veterinary Science, University of Pretoria, South Africa, for their first live animal ovariohysterectomy (OVH), an interactive touch screen OVH application was developed. Currently run within the Android operating system, it takes users through all surgical steps of a canine OVH on either their smartphones or tablets as an adjunct to theoretical training and in preparation for the actual surgical procedure.

Surgical steps are divided into substeps and the screen for each individual substep shows a high-resolution photograph of that part of the procedure, an explanation of the surgical technique, an “important to know” and a “good to know” field. The operator uses touch screen technology to indicate the surgical incision line, where ligatures are placed, to choose surgical instruments and suture material. Some screens have links to video clips illustrating important aspects of steps like tying a single throw catgut ligature. The first version of the application will be tested by clinical year students in 2016. User feedback will be actively sought and suggestions for improvement evaluated and implemented. The final version will have a “practice” and a “test” mode which determines if feedback will be given immediately at each step or after completion of the whole surgery. This will in future enable the use of the application for assessment purposes and ensure adequate knowledge of the surgical procedure before students perform their first live animal OVH.

Rabbits in primary care education: insights from a surgical clinic

L. Benato and J. Hammond, School of Veterinary Medicine, College of Medicine, Veterinary Medicine and life sciences (MVLS), University of Glasgow, Bearsden Road, Glasgow G61 1QH

Involvement in canine and feline surgical neutering clinics is generally considered to be a key element of primary care veterinary education, yet opportunities for developing surgical skills with rabbit patients are uncommon. This is despite the fact that rabbits are currently the 3rd most popular companion animal species in UK. Furthermore, surgical neutering is now routinely recommended for both buck and doe by many small animal veterinarians and the Rabbit Welfare Association (RWA). This study focused on the logistical considerations in setting up a rabbit neutering clinic in a veterinary school setting and we report on the clinical outcomes for patients. Rates of morbidity and mortality were low and complications were infrequent with the majority considered minor. Challenges included ensuring staff and student training in the specific features of rabbit anaesthesia and recovery behaviour. We conclude that rabbit surgical clinics offer excellent learning opportunities for undergraduate veterinary students; and that with prior training in handling and close individual supervision it is possible to achieve good clinical outcomes and to have a positive impact on the welfare of companion animal populations. Therefore we conclude that a rabbit neutering clinic provides high quality care for rabbit patients whilst offering opportunities for undergraduate surgical and case management skills development.

Workshops for veterinarians and technicians establishing clinical skills laboratories in Africa and the Middle East

Catterall, A. University of Bristol; Baillie, S. University of Bristol; Packer, E. Society for the Protection of Animals Abroad (SPANA), UK; Slamani, D. Society for the Protection of Animals Abroad (SPANA), Morocco; and Davies, H. Society for the Protection of Animals Abroad (SPANA), UK.

The Society for the Protection of Animals Abroad (SPANA), an equine welfare charity working in Africa and the Middle East, is extending its educational programmes to include establishing clinical skills laboratories (CSLs) in veterinary schools in its partner countries. The initiative aims to promote the benefits for teaching and animal welfare.

The CSL team from Bristol delivered workshops at SPANA's annual conference in Morocco. The objectives were to make cheap and reusable models, to promote effective approaches to teaching practical skills and to develop supporting learning resources.

During the workshops, delegates undertook four activities. They made suturing models using check-pattern T-towels (the lines assist correct suture placement) and Smooth-on silicon for realistic equine skin. They sutured silicon wounds placed in situ on a polystyrene limb. They undertook a 'train the trainer' activity following George & Doto's five-step method for teaching clinical skills, one delegate as teacher and another as learner; first ensuring the 'owner' (of the working equid) or 'student' understood (conceptualised) why performing the skill (bandaging) correctly was important, followed by a silent demonstration which was then repeated while describing each step. The learner then described and performed the skill. The session was closed by checking the learner could now perform the skill and asking for any questions. The final activity involved developing instruction booklets to support a skill or model.

18 technicians and 25 veterinarians attended the workshops. Engagement was high and feedback was positive. Ongoing collaborations are planned to share resources and develop additional training. [248 words]

GEORGE, J. H. & DOTO, F. X. 2001. A simple five-step method for teaching clinical skills. *Fam Med*, 33, 577-8.

Optimising Animal Management Practical Skills Teaching

Christopher, R. University of Bristol; Brown, H. University of Bristol; Catterall, A. University of Bristol; Baillie, S. University of Bristol; and Butterworth, A. University of Bristol

Developing competence in animal handling skills is important if students are to make the most of pre-clinical extramural studies (EMS) and prepare for their future veterinary careers. Students need as many opportunities to practise as possible using live animals as well as models (where appropriate). However, some students seemed to lack confidence and were failing to utilise all the available learning opportunities prior to EMS placements and in preparation for the end of year practical exam (OSCE-style).

A project was undertaken to improve the acquisition of practical skills:

- The aim was to focus on the student perspective and how best to support and optimise learning
- A recent graduate was employed over the summer to review and improve existing teaching resources
- Models and other learning resources were developed to complement live animal practicals
- Posters were produced listing the skills that needed to be learned, identifying which could be practised on animals in the Anatomy Barn and what models were available and signposting the relevant instruction booklets and videos
- Students were given an extra briefing session to introduce all the resources in the Anatomy Barn and Clinical Skills Lab

Clinical Skills Lab sign in sheets, and staff feedback confirm that there has been an increased uptake in the use of the models and the teaching animals, and a reduced tendency towards a 'last minute rush' before the practical exam.

The 'Animal Management Practical Exam' (in June) will hopefully confirm that the steps taken have resulted in improvements in the students' skill level.

“Show & avoid”: using custom-made videos highlighting common errors to improve student performance of veterinary nursing practical skills

Dunne, K. Dundalk Institute of Technology and Campion, D. University College Dublin

The objective structured clinical examination (OSCE) is commonly a high stakes summative assessment. The examination format may make it difficult for examiners to perceive the reason(s) for poor performance and provide effective feedback.

24 veterinary nursing students were assessed on two laboratory skills OSCE tasks (task 1: blood glucose and urine dipsticks, task 2: urinalysis,) on two occasions. Individual feedback on performance, plus access to videos demonstrating common errors and how to avoid them, was provided after the first examination. The aim was to reduce the number of errors on day two and improve the pass rate.

80% (18/20) of the students on day two indicated that they had watched the errors videos and found them to be either quite or very helpful (mean 3.67, S.D. 0.47).

The overall pass rate for day one was 20% (5/25), 38% (5/13) for task one and 0% (0/12) for task two. It rose to 50% for day two (10/20), 82% for task 2 (9/11) and 22% for task two (2/9).

The majority of the errors highlighted in relation to task one were reduced on day two. However urine specific gravity reading and recording remained problematic, with most candidates continuing to read the result from the incorrect refractometer scale, or record the result incorrectly.

These provisional results suggest that training videos highlighting errors and how to avoid them have the potential to improve performance. However care must be taken to avoid further reinforcing incorrect techniques or lack of understanding.

Effects of integrated clinical skills lab training in small animal medicine rotations at the University of Veterinary Medicine Hannover

Engelskirchen, S. University of Veterinary Medicine Hannover, Foundation, Germany; Ehlers, J. University Witten/Herdecke, Faculty for Health, Germany; Tipold, A. University of Veterinary Medicine Hannover, Foundation, Germany; Dilly, M. University of Veterinary Medicine Hannover Foundation, Germany

The practical year was introduced to involve students in the clinical and scientific working day (1). The practical year (9th and 10th semester) includes a mandatory clinical traineeship in one of the clinical departments. Since 2014 students have to pass an OSCE at the end of their traineeship performed at the clinic for small animals. A group of 68 students (Group A) took this 15 station formative OSCE to receive feedback on their performance of clinical skills. In 2015 one week skills lab training was integrated into the traineeship to prepare students prior to their clinical rotation. The training includes communication with clients, intensive care, diagnostic imaging, anaesthesia and surgical skills. At the end of the complete traineeship, students have to pass the same 15 station OSCE (Group B, n=62). Both groups were compared using descriptive statistics, calculation of significance by Mann-Whitney-U-Test and the internal consistence was calculated using Kuder-Richardsons Formula 20 (2). Since group B performed significantly better in more than half of the OSCE stations the integrated clinical skills lab training will be continued under constant refinement.

This poster gives an overview of the training and the results comparing students groups A and B in order to highlight the efficiency of our skills-lab-training.

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Use of a simple castration simulation model in teaching veterinary students

O'Reilly, M. University College Dublin and Kelly, R. University College Dublin

There is an ever increasing pressure on the teaching of surgical veterinary skills in the format of the traditional “apprenticeship model” of learning in modern day faculties. It is universally evident that there are expanding limitations on student practice due to exponentially growing costs, fear of legal or ethical consequences and also demanding time constraints which seriously hinder the ability to practice and teach on live patients within the operating room. Nevertheless, just as in human medicine, surgery skills must be ultimately taught in the surgical theatre and this aspect of learning is, and will always be, present in final year veterinary medicine curricula. The current challenge in veterinary medicine surgical teaching is to further develop the resources available for students to efficiently learn fundamentals outside of the surgery theatre in order to complement and enhance the live surgery experience that is becoming ever more limited in the final year of the veterinary degree course.

This project seeks to supplement traditional didactic surgical teaching of castration procedures by providing simple, cheap and easily reproducible simulation models that reflect the fundamentals of the surgery at hand. These models will enhance the use of the clinical skills lab in the university and hopefully will increase student motor skills which will result in increased surgical confidence and thereby more independent student performance in theatre.

Educating correct injection techniques: the risk of iatrogenic sciatic nerve damage in dairy cattle

Rosanna Kirkwood¹, Richard Payne¹, John Remnant¹, Alan Murphy², Wendela Wapenaar¹

¹University of Nottingham, Sutton Bonington, UK

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With the reduced size of gluteal muscles of current dairy breeds and the use of large injection volumes it is hypothesized that iatrogenic nerve damage resulting from intramuscular injection could be a significant cause of sciatic nerve paralysis. This study aimed to evaluate the risk of iatrogenic nerve damage and educate undergraduate students on the appropriate location to inject dairy cattle.

The sciatic nerve position was measured and described in detail in 4 adult dairy cattle cadavers. Fifty-four participants (veterinary surgeons, veterinary students and farmers) were asked to inject into the dorsal gluteal region of these cadavers and their injection sites were recorded. Measurements of injection site location and sciatic nerve location were combined to indicate needle position in relation to the nerve.

Results demonstrate that 70% of participants used the dorsal gluteal region as their most common site for intramuscular injection. In addition, 69% of injections were located in close proximity (<5cm) to the sciatic nerve.

The sciatic nerve in dairy cattle is at considerable risk of iatrogenic damage. The gluteal region, although not recommended as injection site in product datasheets, appeared the most commonly used injection site. Based on the results of this study we recommend, in addition to the neck, a safer and appropriate location in the gluteal region that can be taught in veterinary schools to avoid sciatic nerve damage when injecting in this region.

Canine ovariohysterectomy task analysis: Step guide to the procedure

Project partners: Kavanagh D., Parikh N., Manolesou D. and Wickham M. MSc MDD, National College of Art and Design; O'Reilly M., Kirby B. and McAlinden A. The UCD School of Veterinary Medicine

The canine ovariohysterectomy is an extremely complex procedure which is completed on a regular basis in any small animal veterinary practice. Unfortunately it is difficult for veterinary students to get the necessary practice during their training.

The goal of the project was to complete a detailed task analysis that could give the veterinary students a better understanding of all the steps required to successfully and safely complete the operation, prior to moving into animals.

The completion of a task analysis plays a vital role in the design process, allowing the design team to understand in detail the project they are tackling. It's a key design tool to identify pain points and opportunities for design improvement.

A skills laboratory for both veterinary and veterinary nursing students – trends and triumphs in the first year after opening

Scheepers, E., Annandale, A. Onderstepoort Skills Laboratory, Faculty of Veterinary Science, University of Pretoria, South Africa

Increased student intake necessitated alternatives for clinical skills teaching at the Faculty of Veterinary Science, Pretoria. The Onderstepoort Skills Laboratory was therefore opened in April 2015.

This study analysed the utilisation in the first year by reviewing student visits to an open access (10 stations, 55 skills) and supervised practical (10 models, 27 skills) area.

The open access area had 1060 visits. Highest visitation was by 5th year veterinary students (38%), 1st year veterinary nursing students (21%) and 2nd year veterinary nursing students (18%). The most utilised stations were Suturing (27%), Clinical Pathology (24%) and IV access (14%). All stations were visited by both student groups. Visitation was highest prior to practical examinations and entering clinics: 57% of visits in both student groups; implying 43% visits without an incentive.

The practical area accommodated 1719 students in 50 practicals on 12 topics and 9 models, involving all veterinary students in the second, third and fourth years and all veterinary nursing students. Breed'nBetsy's® and the dystocia cow model were used in >50% of the practicals. IKEA dogs, heart-and-lung sounds, thoracocentesis and IV access models were also used. Practical with much smaller student numbers included ophthalmological examination, ultrasound-guided cystocentesis and colic examination.

All areas of the skills laboratory were well utilised by teaching staff and both student groups. Teaching successes included the very high utilisation of the Breed'nBetsy's® and the percentage of open access visits on own initiative. A well-executed open access area has proven to be a valuable teaching tool that promotes student centred learning.

What happens when you open a purpose built Clinical Skills Centre in an established vet school and allow students 24 hour access to it?

Wager, C. J. and Brearley, J. C., Department of Veterinary Medicine, University of Cambridge

The Pauline Brown Clinical Skills Centre within the Department of Veterinary Medicine at the University of Cambridge opened in January 2015 to provide students with modern facilities to rehearse the wide range of practical skills needed by new graduates. The Centre consists of a large open plan skills rehearsal area, a diagnostic imaging room and teaching consultation room, each containing low and high fidelity manikins and clinical skills simulations. Each skills station is accompanied by a detailed illustrated instruction booklet, with on-line support, including tailor-made skills demonstration videos, accessible via Centre-based tablet devices.

In addition to use of the Centre within the timetable, students were allowed 24 hour access to all clinical skills facilities from its initial opening, with the aim of encouraging self-directed skills rehearsal. A paper-based signing-in system was employed to enable monitoring of the Centre's usage, including the total time spent in the Centre on each visit, the year group of the student and the skills they chose to practice.

This poster analyses the data captured from this signing-in system over a 12 month period, in order to explore what factors influence the students' usage of the Centre outside normal teaching time. Topics subsequently discussed include: the influence of the concurrent curriculum and timetabled Clinical Skills Centre usage on self-directed skills rehearsal, differences seen in the type of usage dependent on year group, when students choose to visit the Centre and which skills are most frequently self-selected for practice.

F(pm)2: Assessment, Admissions and transition into Vet School

1	An assessment for contextualising undergraduate veterinary business learning
2	Evaluating the questions of the Internal Medicine final exam using a custom built exam software
3	A comparison of the use of detailed marking checklists and multi-dimensional global rating scales to assess practical skills in veterinary medicine students
4	E-assessment at the University of Bristol: where we are now and how we got here
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6	Evaluation of personal statements of animal experience by veterinary school applicants: a predictor of admission and future performance?
7	Peer Support for pre-arrival at the R(D)SVS: resource & support package for students joining the BVM&S degree
8	Clinical quality enhancement of donkey health service providers in Kenya using a work-based assessment rubric
9	Learning Gain in Early Years Veterinary Students

An assessment for contextualising undergraduate veterinary business learning

Armitage-Chan, E. Royal Veterinary College; Jackson, E.L. Royal Veterinary College

This research provides an example of an assessment technique that can be used to help students contextualise their business learning. Thematic analysis of 23 student group assignments (n=157 individual students) demonstrated cognitive, behavioural and affective engagement. While the intent of the study was not to evaluate the success of the assignment as a teaching strategy, the reflective statements from some groups indicates a development of their learning in this area. The research describes approaches to engagement in those students who chose to engage with the assessment and demonstrates how students are able to engage in veterinary business learning. The data analysis did not incorporate business strategies applied in veterinary practices, as the intent of the study was to explore what aspects of veterinary businesses students find interesting. The data may therefore not be truly reflective of all the business strategies in place, or the emphases given to each by the practices. However, it does demonstrate those aspects of veterinary business that are likely to engage students and early graduates with business teaching. The approaches used by the students to engage with this assignment, and the depth of analysis/appreciation of complexity shown by some students can be used to inform veterinary education in this area. The formative assignment used for this research was quite open-ended, but future developments could take advantage of the preferences exhibited by these students to provide better scaffolding for those who find it harder to engage with the subject.

Evaluating the questions of the Internal Medicine final exam using a custom built exam software

Balogh M, Vörös K, Szent István University, Faculty of Veterinary Science

In 2014, the Department and Clinic of Internal Medicine of Faculty of Veterinary Science, Szent István University, Budapest switched the form of its written final exam from a paper based to a digital, online format. The custom developed format included a feature of anonymous data collection from the examinees, which stored all their randomly received questions, and their answers to those single choice questions. This way, at the end of the exam season, we were able to create statistics about the percentage of correct answers for each of the 714 questions, which in return proved a valuable quality assurance method to see if the questions were indeed as difficult as they were planned. This poster will detail the findings and applicability of this method of self-assessment, as well as some take home messages for those who are not already using exam data to evaluate their questions.

A comparison of the use of detailed marking checklists and multi-dimensional global rating scales to assess practical skills in veterinary medicine students

Brearley, J.C., Wager, C. J. and Allen, L.C.V., Department of Veterinary Medicine, University of Cambridge

Practical assessments form an important part of veterinary medicine courses, and appear in numerous forms, including directly observed procedural skills (DOPS) and objective structured clinical examinations (OSCEs). The use of detailed marking checklists (CL), as often used for OSCE style assessments, have been considered more objective and reliable than global rating scales (GRS), but can risk atomisation of a skill (Van der Vleuten and Shuwirth, 2005; Baillie, Warman and Rhind, 2014). Conversely, it is asserted that GRS are more likely to capture the elements that constitute competence and allow better discrimination between students of varying qualities, whilst still having a high correlation with CL marking (Winckel and others, 1994; Cunnington, Neville and Norman, 1997; Read and others, 2015).

The authors aimed to compare the use of CL and GRS when assessing the practical skills of veterinary medicine students at the University of Cambridge, so that future practical assessment protocols could be refined. CL and GRS were devised to assess fourth year veterinary medicine students in 16 basic clinical skills they have previously encountered in the course. Following Institution Ethical Committee approval, consent was obtained from participating students. The students were required to complete a selection of the assessments as part of their training. This poster considers the analysis of their anonymously collected scores from both the CL and GRS from the practical assessments they completed.

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E-assessment at the University of Bristol: where we are now and how we got here

Crabb, N. University of Bristol; Warman, S. University of Bristol; Warner, H. University of Bristol; and Baillie, S. University of Bristol

The University of Bristol's Veterinary School has been running online summative assessments since 2001. From the first lone 3rd year assessment the School now runs 23 summative assessments across 3 undergraduate and 1 MSc programs. The whole process has recently been through a complete overhaul including a change in the system used to deliver the assessments and a considerable amount of staff training. The School moved from using the test tool within our VLE (Blackboard) to using QuestionMark Perception (QMP) in 2014/15. The overhaul has enabled the school to standardise the processes for all e-assessments, enhance the delivery of online exams for students and improve the quality and consistency of the exam content. The new system has also improved the quality and accessibility of the question statistics available to academics. Another feature of the recent changes has been the benefits of the staff development workshops which have resulted in improved question writing as well as skills in psychometric data interpretation.

The process over the years has not been without its challenges; ensuring system reliability, increasing student numbers vs facilities available and the occasional instance of a combine harvester knocking out the power lines and supply to the School mid exam, testing the robustness of the system i.e. a rapid and full recovery of functionality and data.

This poster takes a brief look at the School's e-assessment history, explores some of the issues we have had to deal with and overcome and the good practice we employ today.

Managing Student Expectations during transition

Fiona J. Dowell, Alison King, Maureen M Bain. School of Veterinary Medicine, University of Glasgow

It is recognised that the transition from school or college to university is a challenging and uncertain time for most students. One of the emerging issues is that there may be a mismatch between the expectations of students and staff in terms of what the university will provide in a number of different areas (academic guidance, personal support, monitoring and feedback) versus what is the students responsibility. An evaluation of the expectations of the programme from both the staff and student perspective would enable us to clarify the situation and allow us to address any disparity.

Teaching staff and first and third year vet students at the University of Glasgow School of Veterinary Medicine were asked to complete the “Managing Expectations” questionnaire (adapted from Ingrid Moses, University of Technology, Sydney, Australia; Research supervision @ Oxford). Participants were asked to indicate the relative responsibility (student or Vet School) for 14 pairs of statements relating to transition into and through the programme. Completion of the questionnaire was anonymous and voluntary.

The questionnaire will be presented along with the results obtained; the data illustrates aspects where student and staff expectations are concordant (curriculum flexibility, attendance monitoring, mentoring and support) and areas where expectations are disparate (feedback, opportunities to practice clinical and animal handling skills). The implications of our findings will be discussed. This data will help us manage expectations of future cohorts of students and to implement improved support mechanisms during the transition from school/college to university and onwards through the programme.

Evaluation of personal statements of animal experience by veterinary school applicants: a predictor of admission and future performance?

Nicole J Fernandez, Matt R Read, Kent G Hecker, University of Calgary Faculty of Veterinary Medicine

Admission to health professional schools is generally based on both academic performance and non-academic measures. Grade point average, Medical College Admissions Test scores, and certain non-academic measures (e.g. the Multiple Mini-Interview) consistently show positive predictive correlations with future performance. Other measures, including personal statements, have non-significant or inconsistent evidence to support their use in the admission process. The reliability and validity of personal statements of animal experience (both veterinary and non-veterinary experience) as a predictor of admission and future performance has not been reported.

A scoring rubric was created based upon the nature and extent of an applicant's animal-related experience, and applications to the University of Calgary Faculty of Veterinary Medicine from 2008-2012 were reviewed. Categories of animal experience included small animal veterinary and non-veterinary; equine veterinary and non-veterinary; production animal veterinary and non-veterinary; wildlife rehabilitation; zoo and aquarium experience; and research with animals. The degree of animal experience in each category was scored as minimal, moderate, or extensive using detailed descriptors.

Applicant statements were scored by two independent raters and agreement between the two raters was calculated on a random sample of 20% of all applications. Further analyses to provide evidence of content, internal structure, and relationship to other variables' validity will be presented and discussed.

Peer Support for pre-arrival at the R(D)SVS: resource & support package for students joining the BVM&S degree

Keys, C.T., Paterson, J. E., Phillips, K., Yntema, M. R(D)SVS, University of Edinburgh

This project aimed to aid student induction into Vet School. During the summer of 2015, three Vet students developed a range of resources - including both academic and non-academic materials. The academic content focussed primarily on the first year "Animal Body 1" course providing introductory and background information on cell biology and anatomy & histology. The non-academic resource included advice on areas such as useful textbooks & equipment, settling into halls and time management. The student team made use of Articulate Storyline to create materials that included both content and self-testing. One student built a 3-d tool to aid visualisation of a cell and its components. All the content was checked and approved by course teachers before it was released and was delivered via Learn to in-coming first year students in mid-August. New students were informed of the package via Facebook and it was featured in the Welcome newsletters sent out prior to arrival. Project evaluation used Learn tracking and questionnaires sent out at various points during the year. Before the start of the session over 80% of students had accessed the course and over the academic year students continued to access the materials. Feedback from the students was highly encouraging with many finding the course useful and some students re-visited the content on numerous occasions throughout the year. For the future, the plan is to build this into being a component of the School's VetPAL scheme with the resources maintained and added to by the VetPAL Leader team.

Clinical quality enhancement of donkey health service providers in Kenya using a work-based assessment rubric

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Kenya has 1,200 veterinarians and 4,383 paraprofessionals registered by Kenya Veterinary Board (KVB). Private service providers (SPs; 53% of vets and 71% of paravets) are responsible for providing animal health services to Kenya's 1.8 million donkeys. KVB does not obligatorily monitor quality of clinical services provided to animals.

107 SPs were purposively selected for an intensive clinical quality monitoring programme. Data were collected using a work-based assessment (WBA) rubric covering six specific areas (animal welfare, communicator, clinical expert, clinical governance, kit content, kit maintenance). WBA scoring was binary (achieved or not achieved). While administering WBA, the SP took the lead working through a routine clinical case, while the mentor observed, offering immediate feedback using the rubric.

Baseline data were collected in April 2015. WBA was administered quarterly. SP performance was graded into 3 categories: A (75–100%); B (50–74%) and C (<50%). Initially 7 (7%) SPs scored Grade A; 46 (43%) Grade B and 54 (50%) Grade C. In March 2016 36 (35%) SPs scored Grade A, 45 (43%) Grade B and 23 (22%) Grade C.

Advantages of WBA include: opportunity for one-on-one case-based learning; identification of individual and group training needs; and relationship-building between mentors and SPs; improved knowledge retention. This leads ultimately to improved clinical service quality and therefore an increase in demand for an individual SP's services. A challenge has been simultaneous availability of sick animal, animal owner, SP and mentor. WBA has a fundamental role in continuing veterinary professional development.

Learning Gain in Early Years Veterinary Students

Victoria Waring, Tierney Kinnison, Ayona Silva-Fletcher. The Royal Veterinary College

There are many competencies required of veterinary students, from yearly learning objectives to Day One Competencies (D1C). However, it is not known at what point during the undergraduate studies these competencies are acquired. This project seeks to explore learning gain, specifically confidence in problem solving and communication skills, over the first two years of the BVetMed course at the Royal Veterinary College.

The project will enable students to reflect on the development of their competences. In addition, programme leaders will be able to evaluate teaching and learning, and take action where areas of relative weakness are identified. The long term goals are to improve alignment from teaching, to assessment, to external driving forces (e.g. D1Cs).

The project comprises a longitudinal questionnaire design. The first questionnaire was administered to Year 1 students in December 2015 (term 1). Initial descriptive analysis suggested most students think they are 'fairly confident' to 'confident' with many aspects of problem solving, for example 'Apply your knowledge and understanding to solve a problem'. Students are mostly 'not very confident' to 'confident' with different aspects of communication skills, including 'Apply the theory of what makes a successful consultation to take a history in a simulated consultation'.

An identical questionnaire will be distributed to these students in May 2016 (Year 1 – term 3) and twice in Year 2 (term 1 and 3). Ultimately, statistical comparisons will be made between the four time points. This poster presents initial comparisons between the results of the two questionnaires administered during Year 1.

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- Robinson F(Am)3: Teaching Methods
- Rutland T3: Veterinary Curriculum
- Scheepers F(Pm)1: Clinical Skills
- Senior T1: Technology And E-Learning (1)
- Serlin T3: Veterinary Curriculum
- Slingsby T2: Student Well Being And Transition Into Practice
- Smith T1: Technology And E-Learning (1)
- Spark F(Am)1: Technology And E-Learning (2)
- Stendahl T1: Technology And E-Learning (1)
- Tisdall T3: Veterinary Curriculum
- Tisdall T1: Technology And E-Learning (1)
- Totemeyer F(Am)2: Scholarship, CPD And Pot Pourri
- Wager F(Pm)1: Clinical Skills
- Waring F(Pm)2: Assessment, Admissions And Transition Into Vet School
- Warman T1: Technology And E-Learning (1)
- Warman T3: Veterinary Curriculum
- Wason Veitch T2: Student Well Being And Transition Into Practice
- Whitworth T1: Technology And E-Learning (1)