Recognising and developing students as teachers: Introduction of a novel Undergraduate Certificate in Veterinary Medical Education

Short title: Certificate in Veterinary Medical Education

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Abstract

A key responsibility of healthcare professionals is the education of clients/patients, colleagues and students undertaking placements. Peer Assisted Learning (PAL) has been incorporated in our veterinary medicine programme for a number of years. The aim of this project was to develop a mechanism to formally recognise the important role that students play in the School’s teaching and learning processes and foster students as partners in education through the development of a novel Undergraduate Certificate in Veterinary Medical Education (UCVME). Students and veterinarians were surveyed in order to inform the design of the programme. The programme is modular and aligned with the UK Professional Standards Framework (UKPSF). Students enrol in their third year, undertaking core and elective components, with completion over the final three years of the degree. The UCVME has been positively received, with 30 of 160 third year students enrolling in the programme’s first year. Activities receiving credit and designed in partnership between staff and students have included: PAL sessions, widening participation school educational workshops and client education events. This initiative has created numerous student-driven educational opportunities. It is hoped that this programme will facilitate the educational training of students and enhance employability and career satisfaction.
Introduction

A key responsibility of healthcare professionals is the education of clients, patients and colleagues and the support of students undertaking placements. Peer Assisted Learning (PAL) is a methodology shown to be an effective tool for enhancing learning of both tutor and tutee (Wadoodi and Crosby 2002; Nestel and Kidd 2005; Ross and Cameron 2007). PAL is increasingly used in the training of healthcare professionals (Baillie et al 2009; Hill et al. 2010).

As part of a commitment to further develop these key skills, PAL opportunities in our School were expanded and in parallel, a novel Undergraduate Certificate in Veterinary Medical Education (UCVME) was developed using the UK Professional Standards Framework (UKPSF; www.heacademy.ac.uk/UKPSF) as a foundation. The aim was to develop a process to formally recognise the important role that students play in teaching and learning processes and foster the ethos of students as partners in education.

Teaching is recognised as an essential graduate attribute in medicine by the General Medical Council (GMC, 2009). Whilst this is not yet formally the case in veterinary medicine, an additional benefit of implementing curricular PAL is the facilitation of educational skills development (and thus employability skills) amongst graduates. In addition, for those graduates who enter higher education as teachers, training pre-service, before starting teaching is not common (Kandlbinder and Peseta 2009). It is recognised that recruitment of graduates into academic medicine is an area of concern; by encouraging students to explicitly develop their teaching skills, institutions can increase engagement in academic medicine, something that will provide long term benefit to the healthcare professions (Lawson McLean et al. 2013). There are limited reports on the development of academic certificates in medical education (Armstrong et al. 2012; Fellmer-Drüg et al. 2014). To the best of our knowledge, there is no equivalent certificate in the veterinary sector and we
believe that this approach will be of potential interest and application across many subject areas.

**Undergraduate Certificate in Veterinary Medical Education**

*Certificate development*

A UCVME Committee was established and a postgraduate student recruited to further develop PAL and help design and implement the UCVME. Students and veterinarians (future employers) were surveyed about the concept and detail of the certificate. The concept was positively received and respondents' comments and suggestions informed the design of the programme. The only concern raised by students was whether they would have sufficient time to undertake this optional programme. Accordingly, this confirmed the importance of designing the programme to allow students to receive credit from some activities already in the curriculum.

A voluntary briefing session was held for the relevant student cohort at the end of the academic session immediately preceding introduction of the programme. Interested students were asked to complete a 'note of interest' and then formally enrol in the programme at the start of the next session. A dedicated area for the UCVME was developed within the Schools' Virtual Learning Environment containing relevant information and documentation for students on the programme.

**UCVME Objectives**

The objectives of participation in the UCVME are to:

- Provide students with a valuable qualification to enhance their curriculum vitae, especially if considering a postgraduate career in academia.
- Encourage initiative and creativity through the design and implementation of education-related activities.
Maximise extra-mural study experiences by incorporating education as a theme when planning placements.

Provide students with opportunities to practise and develop educational and reflection skills

**UCVME Structure**

The UCVME programme has a modular structure similar to current CPD courses that veterinarians study after graduation. The introduction of this structure at undergraduate level provides continuity with postgraduate study and will help ease the transition from undergraduate to postgraduate education and lifelong learning.

The certificate has core and elective components and is divided into three modules based on the veterinary/scientific skills and knowledge of the recipients of the training/learning modality:

- **Module A**: Tutees are unskilled in the veterinary field and have limited veterinary knowledge e.g. general public, school pupils.
- **Module B**: Tutees have a similar level of veterinary skills and knowledge as the tutor e.g. undergraduate peers.
- **Module C**: Tutees are more qualified and have greater veterinary skills, knowledge and experience than the tutor e.g. qualified veterinary professionals, university teachers.

**Assessment**

The UCVME assessment is based around a student-built portfolio documenting core and elective activities. The portfolio details these activities, self-reflection and supervisor feedback. Students embark on the UCVME programme in 3rd year and submit their portfolio at the end of both 3rd and 4th year summarising completed and planned activities.
Completed portfolios are submitted at the end of final (5th) year so Certificates can be awarded at the time of graduation. Documents, student progress and certification are overseen by the UCVME Committee.

In order to achieve certification students must achieve a minimum number of core and elective credits (Table 1). Activities included in the final UCVME portfolio must represent at least two of the three modules (A, B, C) described above.

The programme structure is based on the UKPSF which enables students to engage with relevant dimensions of practice (areas of activity, core knowledge and professional values). This provides an opportunity for students who complete the UCVME programme to evidence their teaching and/or learning support practice and submit an additional final portfolio application aligned to HEA Associate Fellow status.

**Introduction, evaluation and impact of the certificate**

The UCVME has been positively received by students, staff and stakeholders (e.g. secondary schools and veterinary employers). The voluntary briefing session was attended by 61 (38% of a cohort of 160). Of these attendees, 44 (28% of total cohort) submitted a ‘note of interest’ form and ultimately 30 (19% of total cohort) formally enrolled in the programme. This level of uptake was encouraging and it was felt the enrolment reflected students who were genuinely interested in developing their teaching training. Evaluation of the first annual portfolios has shown the students have engaged with the programme thoroughly. Five of the students have embarked on the HEA Associate Fellowship application pathway. Early in the programme, students began initiating activity proposals and the response from stakeholders was very positive. Examples of collected written feedback on the impact of the Certificate include:

School Teacher: “This initiative embodies the sort of partnership working that Curriculum for Excellence is looking to embed in schools as a means of developing pupils’
skills for life, work and learning. The workshops have generated a genuine ‘buzz’ amongst our pupils and this is testament to the thought, care and attention the students put into the exercise.”

Certificate student 1: “I have realised, through this Certificate, that teaching is something I do enjoy.”

Certificate student 2: “I’ve been able to get outside the classroom, outside my cohort of students, and appreciate how far-reaching this field is.”

Certificate student 3: “I have found my communication skills, organisational processes and simplicity in explaining things increase. It has also been a humbling experience to now be aware of the many facets to a teacher.”

Conclusions
This new UCVME has been positively received. This initiative has created numerous student-driven educational opportunities. One educational strand implemented is the opportunity for our veterinary students to become involved in Widening Participation workshops and school visits to foster the link with young people aspiring to enter higher education. As an illustration of this impact, in this first year, 26 of our students have been involved in a total of 9 outreach educational activities, with exposure to over 650 school pupils. There is significant scope for institutions to develop their outreach and public engagement activities through student-centred initiatives such as this Certificate. This gives formal recognition to the vital role our students play in teaching and learning processes and fosters students as partners in education. It is hoped the programme will facilitate the educational training of students, increase engagement of graduates with academic careers and enhance employability and career satisfaction.
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Declaration of interest

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References


### Table 1 - Examples of Certificate activities and modular credit system.

UCVME: Undergraduate Certificate in Veterinary Medical Education; PAL: Peer assisted learning; Module A: Tutees are unskilled in the veterinary field; Module B: Tutees similar level of veterinary knowledge as the tutor; Module C: Tutees more qualified than the tutor. Total minimum 40 credits needed for certification (20 Core + 20 Elective). For modules A,B,C there should be activity in the Certificate across at least 2 of these modules.

<table>
<thead>
<tr>
<th>UCVME ‘Core’ Activities</th>
<th>Year</th>
<th>Activity</th>
<th>Description</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2/Graduate Entry</td>
<td>UCVME briefing and guidance</td>
<td>Plenary</td>
<td>5</td>
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<tr>
<td></td>
<td>4</td>
<td>Communication Skills Training</td>
<td>Participation and peer feedback</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>PAL (Canine Clinical Exam)</td>
<td>Plenary, small group: design lesson plan and delivery</td>
<td>10</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>UCVME ‘Elective’ Activities</th>
<th>Year</th>
<th>Activity</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-5</td>
<td>Equine, small animal PAL</td>
<td>Clinical examination teaching</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3-5</td>
<td>Student Selected Component Course</td>
<td>Educational research project</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>3-5</td>
<td>Module A Activities</td>
<td>Organising/running a ‘Puppy party’ Producing a client information leaflet Schools Careers talk Clinical workshop in schools Developing a veterinary club in a school Outreach activities with charities in Developing Countries</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3-5</td>
<td>Module B Activities</td>
<td>Delivering/recording lecture: preparing for clinical practical classes Delivering student welfare training</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3-5</td>
<td>Module C Activities</td>
<td>Leading institutional journal club Research presentation</td>
<td>5</td>
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<tr>
<td></td>
<td>3-5</td>
<td>VetPALs</td>
<td>Peer study support: Participation, inputs, reflection</td>
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<tr>
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<td>3-5</td>
<td>Peer Support</td>
<td>Peer pastoral support: Participation, inputs, reflection</td>
<td>10</td>
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<td>Any educational topic</td>
<td>Preparation and presentation of educational research project</td>
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<td>3-5</td>
<td>Any educational topic</td>
<td>Preparation, submission and acceptance of educational research paper</td>
<td>10</td>
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