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TITLE: Teaching Professionalism: Using Role-Play Simulations to Generate Professionalism Learning Outcomes

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For a constructively aligned curriculum in veterinary professionalism there is a need for well-designed higher-order learning outcomes, to support students’ professional identity formation. A lack of available uniformly accepted definitions of veterinary professionalism necessitates the defining and refining of current concepts of professionalism in this context, to inform teaching and assessment. A potential method for generating such learning outcomes is to
generate these from simulated professionalism teaching scenarios. A workshop was designed in which veterinary educators used role-play to resolve a professional dilemma. Following discussion of the appropriate management approach, participants were asked to reflect on the learning outcomes that were required to resolve the scenario, and that students would achieve by going through the same classroom-based process. Workshop participants identified a number of professionalism learning outcomes that are not currently defined in the literature, including realisation of the lack of a single correct answer to a professional dilemma, making a decision despite this uncertainty, communicating differences of opinion, and understanding the effect of differences in professional identity. Although the process described runs counter to the traditional approach to curriculum design it may offer valuable contribution to the discourse surrounding professionalism learning outcomes. Furthermore, it has generated higher level learning outcomes than have been obtained through other methods.

**Keywords:**
Professionalism; learning outcomes; course outcomes; role-play; professional identity

**Introduction**

Assessment of a clinician’s or clinical student’s professionalism frequently emphasises workplace based assessments, such as 360-degree evaluations, in which the observed behaviours of the individual are judged.\textsuperscript{1} The assessment of
professionalism in this way represents a traditional approach, in which a professional's inner values are assumed to be accurately represented by their external behaviour. In contrast, a contemporary complexity framework of professionalism can be defined by the acknowledgment that the environment in which the professional works, and the varying demands associated with their interactions at different levels (e.g. client, employer, institution, society) will challenge a professional's external portrayal of their inner values. Greater understanding is therefore afforded to the clinician who may be juggling various responsibilities (to patients, families, students, hospital administrators, and colleagues), is trying to remain 'professional' in the eyes of all, even though all may be exerting conflicting needs, and whose observed behaviour may be temporarily compromised by the effects of 'human factors' (stress, fatigue, concerns about a difficult case, heavy workload). Viewing professionalism through a contemporary complexity model therefore necessitates assessments that extend beyond observed behaviours. Furthermore, it can be argued that the desirable attributes of the healthcare professional extend beyond those that can be assessed in this way, and include moral reasoning, ethical decision making, recognition of limitations and the appropriate use of clinical autonomy. The purpose of this paper is therefore to demonstrate a method of improving assessment practice, in this case through a novel approach to generating professionalism learning outcomes that have high validity and are engaging to students.

Attention has recently been drawn to the importance of professional identity formation in medical students, and the need to formally address this in medical
In a constructively aligned curriculum, such as defined by Biggs, the desired graduate skills, knowledge and attributes inform firstly the assessment, and then the teaching methods, such that students are taught and assessed in a way that maps onto their expected performance post-graduation. As this approach helps support student learning, designing professionalism assessments that are well aligned with professional identity formation will encourage and direct student development. There is therefore a need to generate professionalism teaching and assessment methods that facilitate the formation of a professional identity, such that the clinician is able to practice ethically and with confidence in a complex, self-regulating profession. It would also be expected that the achievement of well developed sense of identity would ultimately lead to a clinician who is better able to demonstrate desirable behaviours despite the demands of the clinic, and would be less vulnerable to the negative effects of the hidden curriculum.

Designing a constructively aligned curriculum typically starts with a consideration of intended course outcomes, which inform assessment methods and then teaching strategy. Despite a wide discourse, professionalism in both the medical and veterinary literature remains a diverse and variably defined concept. Without robust learning outcomes, professionalism teaching and assessment are at risk of becoming undermined. Students are distrustful of professionalism assessment that is poorly aligned with the behaviours they experience in the hospital, and with those that they perceive are rewarded in faculty. They are therefore known to ‘play the game’, and create a dichotomy between the set of values they demonstrate in assessments, and those they
believe will help them in professional life. The creation of valid learning outcomes that are aligned with both success in the clinic and the formation of a well-developed professional identity is therefore necessary to support student development and engage them in learning. The lack of a contemporary complexity definition of veterinary professionalism means there is a deficiency in formalised, universally accepted outcomes appropriate for building a modern professionalism curriculum.

Role-play in teaching is used to provide students with opportunities to practice, reflect on, and develop important skills in a predictable and safe learning environment. In professionalism teaching, students can be given a situation that represents a challenge to professional reasoning, skills or behaviour, with feedback to support on-going development. The learning outcomes that are achieved from 'living' a professional dilemma will be closely related (if not identical) to the skills and attributes required to successfully manage a similar situation in practice. When attempting to define professionalism learning outcomes, we therefore proposed that, in the absence of available higher-order learning outcomes for success in a complex profession, it should be feasible to provide students with an authentic simulated experience, and then ask them to reflect on the skills, knowledge and attributes they utilised to complete the task to their own satisfaction. Once these learning outcomes have been identified, they can be used to inform constructively aligned assessments and further development of teaching strategies.

Methods
A workshop was designed for veterinary educators at the 2015 annual Veterinary Education conference in Cambridge, UK. The objectives of the workshop were to identify outcome competencies of professional studies teaching, to demonstrate how formative and summative assessments facilitate the development of professionalism, and to encourage participants to explore the boundaries of the veterinary social contract through role-play scenarios. This was based on the model of professionalism teaching developed by Cruess and Cruess\(^7\) in which the cognitive basis of professionalism is followed by provision of opportunities for experiential learning. Clearly the intent of this model is to structure professionalism teaching over the length of the undergraduate medical curriculum; however it was explained to participants that the 90-minute workshop was intended to represent this overall curriculum design in a micro-format. In the first 15 minutes, by way of introductions, the two facilitators (MW and EAC) each presented the conceptual frameworks on which they defined professionalism in the context of their own veterinary teaching. This preceded a period of experiential learning, in which participants were given an authentic role play simulation followed by a structured reflection on the skills utilised, challenges faced and learning outcomes achieved.

Two diverse conceptual frameworks represented two extremes of professionalism teaching in the UK. The first framework is one of professional boundaries, such that the professional is empowered in a social contractarian fashion.\(^8\) They may undertake anything with their legal monopoly power to treat, diagnose and advise on animal care and make a profit from such interactions so...
long as these interactions abide by the public interest, which supported that empowerment. The professional is free to act as they please, but they are constrained by the boundaries of the social contract, of legislation and of the Codes of professional regulation. Relevant legislation, and the Royal College of Veterinary Surgeons (RCVS) Code of Professional Conduct, are therefore central in teaching practiced within this framework in the UK, which largely resides in the deontological approach and contrasts sharply with the virtue based ideology of the second framework. This second framework has its roots in the emphasised professional autonomy and discretion in practice described in Freidson's definitions of the professions. However it additionally reflects the contemporary complexity lens described by Castellani and Hafferty, incorporating the notion of different identities, with differing professional priorities, co-existing with equal validity within a profession, and also the challenges encountered by balancing competing stakeholder needs, often resulting in apparent paradoxes in professional behaviours when compared to traditional notions of the idealistic professional. The professional is therefore free to act as they please, and must do so in a manner that maintains public trust and the self-regulatory framework afforded by the social contract, with a recognition that the complexities of the modern clinic may often result in observed behaviours that may not align with traditional expectations. Where professionals are deemed to act 'unprofessionally' by a particular stakeholder, it is generally because of a difference in identity prioritisation. Teaching in this framework therefore emphasises autonomy in decision-making and variation between professionals. In both frameworks, although conceptual differences exist, the end result is a convergence of teaching methods: both require
strengths in ethical and professional decision-making, including prioritisation of interests, in the face of a situation where there are conflicting stakeholder needs, and a need for a robust framework for complex decision-making. Students are encouraged to consider a situation from the viewpoint of all involved parties, including both deontological and utilitarian perspectives, and recognise that the course of action they choose to select will have both risks and benefits.

Through the provision of these introductions, participants had thus been provided with several conceptual frameworks for defining the 'cognitive basis of professionalism'. Participants were then provided with an activity developed at the Royal Veterinary College (RVC) in 2009 as a multiple format cumulative learning structure for veterinary ethics,¹³ which is used in third year veterinary undergraduate teaching at this institution, approximately 16 months before the students start clinical rotations. The particular scenario used is shown in Box 1. Participants were divided into groups of five or six people, provided with the scenario, and were instructed to reach a common decision within their small group for its resolution. They had approximately 20 minutes to achieve this. Once all groups had reached their decision, the decisions would be shared between the groups as a 'whole room' activity.

**Ethical considerations**

The participants of the workshop were not informed of this research prior to their engagement, as the usefulness of their outcomes was not determined until its completion. Consequently, all responses were deidentified so as to protect
their interests. This presents as a challenge to informed consent for research participation, but as the workshop was available for anyone to attend, and participation in the oral discussion was not mandatory, the participants were able to voluntarily withhold their participation if they wished not to express their views to the educational community. Subsequently, the authors submitted for institutional retrospective ethical approval from the Royal Veterinary College, with this caveat in mind. The cost benefit analysis of research outcomes and the use of deidentified data against lack of informed consent, resulted in ethical approval URN: 2015 1413.

Results

Thirty conference delegates participated in the session. Demographic data of the participants were not collected, but all participants had a strong interest and/or involvement in teaching and assessing veterinary professionalism in the UK or elsewhere in the EU. The ethical dilemma provided to the groups rapidly triggered in-group discussion. When small groups shared their decisions for resolving the situation, this initiated debate and discussion as differences emerged both in the preferred action and the priorities in decision-making. After approximately 10 minutes of debate, the facilitators intervened and asked the participants what learning outcomes they felt students would achieve by going through the same process. These were collected by the facilitators, and are listed in Box 2.

Discussion
In general, developing a constructively aligned curriculum starts with the learning outcomes required for the graduate, which then feed into assessment design and teaching strategy. This could be described as a “top to bottom” approach. However, as uniformly accepted, higher level learning outcomes are not available, it is challenging to implement this top-down approach to professional studies teaching. Identifying learning outcomes that are necessary for the successful resolution of an authentic professional dilemma, and developed during a role-play simulation on the same theme, represents an alternative, “bottom to top” design of curriculum outcomes.

Since 2000 it has increasingly been established that there is a need for inclusion of non-technical or professional competencies in veterinary curricula. The outcome competences necessary to direct curriculum design have been gathered using a number of methods, including reports from consultancy firms, surveys of employers and recent graduates, and veterinary faculty workshops. These have yielded a variety of desirable graduate competences, in particular relating to veterinary practice management and business acumen, communication and interpersonal skills, teamwork, and ethical responsibilities including recognition of conflicts of interest and responsibility to animal welfare. More recently Bok et al described a multi-methods study in which a focus group of 54 recent graduates and veterinary clients, together with an expert panel, created a competency framework to direct curriculum outcomes. These generated desirable veterinary competences in seven domains: veterinary expertise, communication, collaboration, entrepreneurship, health and welfare, scholarship
and personal development. Findings such as these have been used to inform curriculum design for the teaching and assessment of non-technical competences.

In comparison to the professionalism competences identified above, those generated during the described workshop represent more specific and higher-order learning outcomes. Matthew et al. described a similar approach to the identification of learning outcomes from veterinary teaching, in this case using final year clinical rotations. They categorized the student-identified learning outcomes according to increasing complexity; at the least complex level were individual technical skills and remembering protocols and formulae for dealing with standard case presentations. Higher order outcomes were represented by an understanding of the contextual variation inherent in veterinary case management, recognition of different preferences in professional decision-making, and identifying personal and professional factors related to sustainable practice. The learning outcomes identified by the workshop participants in this study are similar to the higher order outcomes described by Matthew et al. Skills such as recognizing that there isn’t a single correct answer and making a decision despite this uncertainty, communicating differences of opinion with colleagues and clients, acknowledging the importance of self when making professional decisions, and respecting the existence of varying identities within the profession, are vital for the graduate veterinary surgeon faced with the demands of the complex and constantly changing professional environment.

The learning outcomes supported by the role-play simulation also reflected a wider range of professional skills and attributes than can be assessed using
observations of professional behaviour in a clinical setting. The role play model therefore not only represents an approach for generating complex learning outcomes, but also provides a means to assess competences that may not be easily identifiable from clinic behaviours. Using the learning outcomes generated in student simulations to inform assessment development offers a number of advantages compared to the use of externally derived learning outcomes in a traditionally constructively aligned model. Students are able to identify the skills they need to manage a professional dilemma to their own satisfaction, and also reflect on those they achieved in the session and those which were more challenging. Using these learning outcomes to develop assessments lends validity to the assessment (because it was generated from an authentic clinical experience) and provides scaffolding for the students to direct their own professional development.

Teaching and assessment outcomes of the RVC ethics course were initially based on the RCVS Day One Competencies, RCVS Code of Professional Conduct, and guidance from the American Veterinary Medical Association. Recognising the additional complex learning outcomes that students are able to achieve in these sessions has not only enabled refinement and improvement of the ethics teaching, but also directed the development of professionalism teaching in other areas, and has informed assessment practice. For example, the same format of scenario-resolution-discussion-refinement has been extrapolated into veterinary business teaching, sessions on informed consent and complementary and alternative medicine. The ethical and professional reasoning processes demonstrated by the students are aligned with the logical approach to clinical
reasoning taught at the RVC, enabling students to resolve clinical and professional scenarios in an integrated fashion. The developed scenarios also inform further development of new scenarios for communication skills teaching, so that the communication of complex problems between colleagues can be practiced, in addition to communicating these to simulated clients.

Assessment of professional studies was initially informed by the ethics teaching strategy as students were asked to repeat the process practiced in small group teaching sessions, but in an essay-based assignment. Identification of the learning outcomes achieved by students in their role plays has enabled further development and refinement of this assessment strategy, such that the core strand outcomes (ability to view a situation from a number of perspectives, consider the conflicting needs of the veterinary patient and business, make a decision in a situation without a single correct answer, exercise autonomy in decision making in an ethically-informed manner) are represented whichever component of the professional studies strand is used to generate an examination question. Although initially only applied to a single end-of-year assessment taken by students prior to entering clinical rotations, identification of this set of learning outcomes has enabled professional studies summative and formative assessments in year 1, 3, 4 and 5 to be aligned with the same course outcomes. Although the level of complexity expected from students is greater in the end of year 5 final examinations compared to that expected at the end of year 1, students at all stages are expected to demonstrate similar uses of ethical frameworks (particularly viewing a scenario from the different perspectives of the affected parties), recognise that there is no single correct answer but at the
In traditional arrangements of constructive alignment of curriculum relating to professionalism, the process is arranged in a ‘top-to-bottom’ process. The key desirable attributes in graduates are known and established and these skills and knowledge lead to the creation of course learning outcomes. The outcomes then feed further downwards to inform the assessment content and method and the teaching requirements. However, despite surveys of the profession and competency working groups, the available published professionalism learning outcomes have failed to keep pace with the evolving profession and demands on the contemporary veterinary professional. Thus this model of developing learning outcomes from authentic student role-play scenarios helps to determine those skills and attributes that are hard to define, and yet essential for success in a complex environment. The model presented in this workshop has thus led to a ‘bottom-to-top-to-bottom’ approach to constructive alignment, where the teaching strategy led to the identification of authentic, high validity learning outcomes (bottom-to-top) which then in turn led to further improvement of assessment and teaching (top-to-bottom). Such an approach can be used alongside more traditional methods for the development of higher order learning outcomes to inform teaching and assessment. Using role-play scenarios obtained from contemporary examples from the profession ensures that course learning outcomes remain time- and context-relevant.
Box 1: Ethical dilemma scenario used in the workshop.

Your practice has a policy on strongly persuading clients to have their dogs neutered. They offer bonuses of free food for a month to the client and they give you a £50 bonus in your paycheck for each animal you neuter.

A regular client of yours asks if it is specifically in her dog’s best interest to have her new 1 year old Abruzzenhund neutered.

What do you say to the client?

Box 2: Learning outcomes identified by workshop participants following role-play of an ethical dilemma.

- Realising there isn’t one single correct answer
- Making a decision in the face of this uncertainty
- Respecting others’ opinions
- Communication skills: Communicating the answer to a difficult question to a client
- Communication skills: Communicating differences in opinion with colleagues
- Seeing a situation from a range of perspectives
- Understanding identity and acknowledging a range of identities
(specifically in this situation: different interpretations of the veterinary role; some felt their role was to provide a list of pros and cons to a particular action, others felt their role was to provide their own opinion of the desirable action)

- The importance of the self: recognising the importance of autonomy in decision making and one’s own view as integral to navigating the dilemma
- Reasoning a complex problem

References


