AHEAD OF PRINT ARTICLE

Beyond Competence: Why We Should Talk About Employability in Veterinary Education

Melinda A. Bell ■ Martin A. Cake ■ Caroline F. Mansfield

ABSTRACT

The purpose of this article is to explore *employability* as a complement to *competency* in defining the overarching objectives of veterinary education. Although the working usage of the term *competency* has evolved and stretched in recent years, and contemporary competence frameworks have expanded to better reflect the range of capabilities required of a veterinary professional, the potential remains for the dominance of competency-lead discourse to obscure the aim of producing not only competent but also successful and satisfied veterinarians. Expanding the educational mission to include employability may provide this broader focus, by stretching the end point, scope, and scale of veterinary education into the crucial transition to practice period, and beyond. In this article we review available evidence from multiple stakeholder perspectives and argue that employability expands the focus beyond servicing the needs of the public to better integrate and balance the needs of all the stakeholders in veterinary education, including the graduates themselves. By refocusing the goal of veterinary education to include the richer end point of success, turning the attention to employability could enhance current attribute frameworks and result in veterinarians who not only better meet the needs of those they serve but are also better prepared to experience fulfilling and satisfying careers. Finally, we suggest one educational approach may be to conceptualize competency, professionalism, and employability as overlapping dimensions of the successful veterinary professional.

Key words: employability, veterinarian, job satisfaction, success, competency

INTRODUCTION

Recent decades have seen substantial change in veterinary education, as colleges and professional bodies have struggled to shift their quality assurance processes from inputs (what is taught by the college) to outputs (what is learnt by the graduate). As a result, considerable effort has been invested in defining what a veterinary graduate should know and be able to do (outcomes), which have been further deconstructed to define competencies—the knowledge, skills, and attributes underpinning the ability to perform complex professional tasks. While the more observable and objectively assessable skills have been readily co-opted, educators have struggled to incorporate all of the qualities of a good veterinarian within existing competence frameworks.2 The difficulties of teaching and assessing the more elusive, humanistic qualities of the successful and high-functioning veterinarian—values, emotions, self-beliefs, metacognition, experience, judgement have made it challenging to easily accommodate these within educational frameworks guided by the paradigm of threshold competency.²⁻⁶

It should be noted that the term *competence* has an evolving usage in both medical and veterinary education, and while it often refers to threshold capability (i.e., "the

ability to perform the roles and tasks required by one's job to the expected standard,"3(p.1) some frameworks listing veterinary competencies apply the term more broadly.⁷⁻⁹ Throughout this article the terms competence or competency are generally intended in the narrower sense, and comments directed at this paradigm should not be interpreted as critiques of contemporary competence frameworks. Nevertheless, while we recognize the expansion and evolution of current competence frameworks to better reflect the demands of society and the veterinary profession,3,7-9 accompanied in turn by increasingly broader interpretation of the term competence, we argue that it is time to instead expand the vocabulary we use to capture veterinary capabilities. In this article we explore the potential for shifting focus to also include a different objective, employability, to complement and broaden current approaches in veterinary education and better prepare students for successful careers.

The Constraints of Competency

The progressive shift toward competency-based approaches in veterinary education, as educators have moved emphasis away from curriculum content and toward intended learning outcomes, is in line with a well-established trend in health sciences education. In veterinary education this has largely evolved in response to the standards articulated in documents such as the Royal College of Veterinary Surgeons (RCVS) Day One Competences^{3,10} and the American Veterinary Medical Association Council on Education outcomes assessment standards.¹¹ Similar frameworks have been developed in the United States,^{12,13} as well as similar frameworks in Europe^{9,14} and Australia¹⁵; some of these are true threshold competency frameworks, while others are more holistic graduate attribute statements.

Typically, such documents focus in detail on what individual graduates should be able to do but are more guarded on why, that is, the overarching objectives or higher goals of this process. The influential RCVS Day One Competences, for example, opens by stating the necessary but perhaps modest goal of setting out "... the minimum essential competences that the RCVS expects all veterinary students to have met when they graduate, to ensure that they are safe to practise on day one."3(p.1) emphasis added) By default, the aggregate outcome of a competency-based approach is to produce a competent professional who has achieved the state of competency, a state that is widely invoked but surprisingly difficult to define.^{2,16} Particularly for the more subjective professional competencies, expectations may be more easily defined by exclusion, thus instead defining a not incompetent veterinarian. Yet although veterinary graduates may all be certified as competent, this is clearly no guarantee of career success—some graduates may be very successful early in their veterinary careers while others may flounder. If all have been deemed competent, through achieving all threshold competencies, where exactly does the difference in their success lie?

The dominance of competency discourse has also been questioned in medical education. 4-6,17,18 While there is no doubt that a doctor or veterinarian should be competent, there are some constraints with a competence-focused approach, not least that the explicit focus on a minimum threshold of competence by the graduate distracts from the pursuit of excellence.^{5,6} Other criticisms include that the reductionist/atomistic approach ignores complexity^{4,5,18}; that the criterion-referenced approach discourages reflective practice, particularly in work-based learning^{4,6}; that the essentially behaviorist approach fails to capture the underpinning knowledge, judgments, and values fundamental to expert practice⁴⁻⁶; and more broadly that these approaches fail to capture the most important things that distinguish a good doctor from a competent one.⁵ The language of competency is inherently restrictive, though frequently stretched beyond its natural limits; for example we do not normally describe a person as competent at being honest, or competent at being confident.5

Broadening the Scope

The rise of competency-driven approaches has occurred against a background of soul-searching review of the state of the veterinary profession and adequacy of veterinary education.^{7,19–22} Commentators have repeatedly warned that economic and societal changes have created a mismatch between the skillset of veterinarians and those

required for career and economic success¹⁹⁻²² and that traditional approaches to veterinary education leave graduates inadequately prepared for successful transition to practice.²² These imperatives have yielded calls to broaden the scope and potential of the profession²¹ by expanding the set of skills, knowledge, attitudes, and attributes required for the success of future veterinarians.^{8,19} But what does success in the veterinary profession actually mean? Lewis and Klausner used focus groups to identify six themes pertaining to the successful veterinarian (personal fulfilment, service to others, work-life balance, professional respect, goal-setting, adequate financial compensation) and to define the non-technical competencies (or more correctly, inherent behaviors) underlying career success.8 Viner defined success in practice as simultaneously maximizing high-quality care and personal wellbeing.²³ The characteristics of a successful veterinarian have been surveyed in several studies, 8,24,25 and many of the same skills were prominent among the core competencies identified by the North American Veterinary Medical Education Consortium (NAVMEC) as necessary to "graduate veterinarians with the skills that are highly valued by employers and by society in general."7(p.31) While these definitions are useful, the guiding construct of success may be too esoteric, too personal, and too open to interpretation to adequately constitute an overarching goal of veterinary education.

The aim of success in professional life is difficult to disentangle from success in personal life, or indeed just *life*. Much has been written about the high rates of mental distress, burnout, and suicide within the veterinary profession,²⁶ and it is generally thought that mental health issues contribute to undesirable rates of attrition from the profession.^{27,28} All veterinary educators will know bright, dedicated veterinary students who have expressed a vocational calling for veterinary medicine since they were children only to experience stress and burnout and leave the profession within a few years of graduation. While there may be many different reasons that veterinarians leave the profession, one concern is that these graduates may not have been adequately prepared for the realities of being veterinarians and may not have developed the capabilities giving them the best chance of success and satisfaction in their chosen career. Is there a better way to foreground and develop these "capabilities that count"?29(p.354)

Collectively, these issues in veterinary education suggest that approaches based in the paradigm of *competency* have been slow to capture the breadth of (largely nontechnical) capabilities that underpin career success, satisfaction, and well-being. In other disciplines and other educational contexts, this would recommend attention to *employability*, a term hardly explored in the veterinary context.

WHAT IS EMPLOYABILITY?

Employability, notionally the ability to gain and maintain employment, has emerged initially as a focus of government policy and subsequently as a burgeoning research area during the last two decades. Most of the initial work was conducted by researchers in the United Kingdom, ^{30–32}

who developed the most widely used definitions and models for employability, but others have also contributed theoretical understanding to this field from psychological, vocational, and educational perspectives. ^{33,34} As it exists in the literature thus far, employability is a complex, multidimensional construct with many overlapping themes evident among authors, yet none of the models is applicable to all contexts. Some of the more widely used employability models are briefly discussed and compared here to provide an overview of the complexity of employability.

While the more simplistic initial (policy-driven) conceptions of employability focused on divining lists of key skills desired by employers, the USEM model of employability³⁰—comprising understanding, skills, efficacy beliefs, and metacognition (including reflection)-was one of the first to fully explore the multi-dimensional nature of employability. This model, while considered pioneering, was hampered by its very academic nature and the difficulty related to its practical application.³¹ This led to the development of the CareerEDGE model of employability, which was intended to be a more practical and accessible employability framework.31 The CareerEDGE Key to Employability model comprises the themes of career development learning; experience (work and life); degree subject knowledge, understanding, and skills; generic skills; and emotional intelligence. It uses reflection and evaluation (in an individual possessing self-efficacy, selfconfidence, and self-esteem) as the key to unlocking employability. It is still the most widely used and cited employability model, likely due to its practical applicability and the ease with which it can be understood.

Dacre Pool and Sewell articulated a now widely-used definition of employability as "having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful."31(p.280) The inclusions of the words "a person," "successful" and "satisfied" moves employability beyond getting a job and into the sphere of professional/personal success and satisfaction and implies that employability is linked to an individual's well-being (as recently demonstrated empirically by Baumann and colleagues³⁵). It is also clear that the employee must be included as a stakeholder—as he or she is the person achieving success and satisfaction or, in other words, well-being. This definition also lends itself to a more long-term or sustainable viewpoint of employment than that of the acquisition of a graduate's first job, since security, success, and satisfaction in one's chosen career are not usually established immediately after graduation.

Subsequently, Hinchliffe and Jolly explored employability through the related concept of graduate identity.³² In their model, employability is a *capability set* comprising four dimensions of value, intellect, social engagement, and performance. Though the term *graduate identity* could initially be interpreted as defining a fixed entity upon graduation, the authors stressed this as a transitional identity in a pathway to future professional identities. Holmes used this view of employability as an *identity project* to argue that employability is not so much possessed by the graduate but is more an emergent outcome

of a social process of identification, emphasizing the key role of evaluation and affirmation by others in determining employability as the outcome of a *process*.³⁶

While these models differ on the degree to which employability *belongs* to the employee, all move beyond simple checklists of knowledge or skills required for getting a job, into the multi-dimensional realm of the personal capabilities underpinning success and satisfaction in employment. Hogan and colleagues suggested that the research approach to employability has revolved around the "study of career success." ^{33(p.3)}

THE POTENTIAL FOR EMPLOYABILITY IN VETERINARY EDUCATION

Using Dacre Pool and Sewell's definition,³¹ it can be argued that employability offers the potential to focus veterinary education beyond competence as the predominant graduate outcome and toward sustainable success, satisfaction, and well-being in employment. The complementary differences between the educational paradigms of Day One Competences and employability are explored in Table 1. However, it must be acknowledged that competence of a graduate is implicit within employability and remains essential to embedding quality-assurance standards in veterinary education. Indeed "technical competence ... is not just a desirable character trait but is central to [veterinary] professional identity from an early stage"37(p.436) and will always remain a fundamental requirement of veterinary education. Furthermore, we again stress that more recent veterinary competence frameworks⁷⁻⁹ have been developed with more holistic reference to stakeholder expectations; we argue these have already begun to blend the objectives of employability, competency, and professionalism. Thus employability should be viewed as complementary to competencybased approaches rather than displacing them and as a natural evolution of trends already evident in veterinary education.1,7,38,39

A focus on employability has the potential to extend the educational scope beyond graduation rather than the defined end-point explicit in Day One threshold competency frameworks. 3,7,12,15 An employability approach makes it clear that the capability set of the veterinarian extends beyond skills and knowledge to include experience (life and work), enabling psychosocial factors such as selfefficacy and self-esteem and growth processes such as self-awareness and reflection. Important elements of veterinary education potentially emphasized by an employability focus include the suite of professional competencies (communication, teamwork, and self-management) urged by NAVMEC,7 as well as lifelong learning and reflective self-evaluation (i.e., reflective practice), which sit uneasily within a competence curriculum.^{4,6} The RCVS Day One Competences explicitly states that graduates must "recognise [their] personal and professional limits,"3(p.6) a competence necessitating self-reflection, albeit with a restrictive or negative focus, whereas in employability self-reflection and reflective practice are employed for recognizing personal potential and goal-setting. Employability in veterinary programs would align the learning and expectations

Table 1: A comparison of the complementary perspectives potentially emphasized by the guiding paradigms of threshold graduate (Day One) competency versus employability

	Guiding paradigm	
	Day One Competency	Employability
Structure and purpose		
Overarching aim	Ensuring minimum competence and protecting the public	Career success and satisfaction
Primary stakeholders	Accrediting and registration bodies, universities	Employers, clients, employee (self)
Time frame	Short-term	Long-term (sustainability)
End point	Fixed at graduation	Continuous across transition/career
Emphasis		
Proficiency	Minimum threshold	Scalable to mastery
Capability set	Knowledge, technical skills, professional skills	positive personal qualities, self-beliefs, metacognition, experience
Self-audit	Recognizing personal and professional limits ³	Recognizing personal and professional potential (encourages goal-setting and reflective practice)
Evaluation		
Standards	Normative	Informative (strengths and weaknesses)
Source	Encourages external evaluation	Encourages reflection and self-evaluation aligned with external (multi-source) feedback
Assessment	Summative (at graduation)	Formative (feedback-driven, ongoing cycle)

encountered during work integrated learning contexts with those of potential employers and colleagues, enhancing learning around the "social and cultural dimensions of becoming a professional." ^{6(p.109)} Because of the breadth of its success end point, an employability approach naturally recommends a multi-stakeholder perspective identifying and balancing the needs and expectations of the employees, employers, clients and the public, and the veterinary profession. This aligns well with the conceptualizations of veterinary professionalism explored by Armitage-Chan and colleagues, which portray the contemporary veterinary professional as someone balancing multiple responsibilities and navigating the complex and sometimes conflicting interests of multiple parties (client, patient, business, colleagues, self). ³⁹

STAKEHOLDER PERSPECTIVES

So what might employability look like in the veterinary context? What do we know about the capabilities of veterinarians experiencing success and satisfaction in their working lives and the expectations of employers, clients, and other stakeholders that might inform pedagogy for veterinary employability? It should be noted that the term *employability* has not to date appeared in the veterinary literature, and therefore related outcomes including initial employment, transition to practice, employer satisfaction, client satisfaction, job satisfaction, and so forth must be used to search the veterinary literature. A recently completed Best Evidence in Medical Education review

systematically examined the evidence surrounding which professional (non-technical) competencies are most important to the success of graduate veterinarians.40 The only competency found to be strongly supported by current evidence from competency frameworks, stakeholder perceptions, and empirical evidence is communication skills, though some empirical evidence also supports the importance of empathy, relationship-centered care, selfefficacy, and business skills. Awareness of limitations, resilience, professional values, critical thinking, and collaboration were perceived to be relatively more important in stakeholder surveys; while such perceptions are not necessarily evidence-based, it can be argued these views have the potential to be self-fulfilling in the employability context. However, the point highlighted most strongly in this review was the relative dearth of evidence that exists regarding the importance of professional competencies (with the exception of communication skills), which might be expected to comprise many but not all of the competencies influencing employability.40 This is not surprising given the relatively recent emphasis on professional competencies within veterinary education, but it serves as a reminder that empirical evidence should ideally guide the evolution of veterinary curricula.

A further question to be explored is which stakeholders most influence employability in the veterinary context? Veterinary graduates have many bosses whose expectations they need to meet. These interact with the veterinarian and with each other at multiple social-ecological



Figure 1: A social-ecological map of the key stakeholders in veterinary employability

levels of societal, organizational, and personal interactions (Figure 1). The major stakeholder implicit in a construct termed *employability* will always be the employer, since this group holds the initial key to a graduate securing employment, and clearly the expectations of the employer will always be important when evaluating the success of the employee. However, in veterinary practice the employer might be a practice owner, a group of partners, a small business enterprise, a corporation or organization, or even the individual veterinarian as a self-employed entrepreneur. Clients must also be considered stakeholders, as client satisfaction is crucial to success in the clinical context, and the client is the person most directly contracting the services of the veterinarian. Likewise, the broader veterinary profession has clear expectations of the veterinary graduate, particularly surrounding professional behavior, and must be considered a stakeholder in judging the success of a veterinary graduate. Veterinary educators and faculty, though not a direct consumer of graduate services, also have a major influence in shaping the real and perceived employability of their graduates and share a stake in their success. Finally, the graduate must be included as a central stakeholder in employability, recalling Dacre Pool and Sewell's definition of employability as enabling a person (i.e., an employee) to experience success and satisfaction in his or her own work.31 Such a central role for the self (see Figure 1) illustrates a clear difference between employability and threshold-level competency, which typically emphasizes the primacy of the needs of the public or society.3,7,9,12 Such approaches tend to guide teaching and assessment from the point of view of others-to ensure a graduate who is competent and fit to practice.3 Employability embeds the self as central, given that the end point is a veterinarian who is satisfied and successful in his or her career.

These stakeholder perspectives are likely to highlight many of the same core capabilities but in different contexts and with different emphasis and priority rank. Below we review these various stakeholders and summarize available evidence for the capabilities that might be most valued by each group in an employability context.

The Employer

Employers (including the broader enterprise) directly influence employability outcomes in terms of initial and ongoing employment and also influence success and satisfaction in work. Heath and Mills found in a survey of Australian employers that the most important attributes for selecting a new graduate veterinarian for employment were interpersonal skills, such as the ability to gain the respect and confidence of clients, skill in handling people, and ability to work as part of a team.⁴¹ A study of factors correlating with employer satisfaction found that while technical skills are important to employer satisfaction (particularly taking action, e.g., procedural and surgical skills), non-technical skills account for nearly twice as much of the variance in overall employer satisfaction.⁴² Within interpersonal skills, business skills and problem solving were the capabilities that most strongly predicted employer satisfaction. In another study, problem solving and critical thinking, diagnosis and treatment of disease, and oral communication skills were rated by employers as the most important areas for veterinary schools to provide formal training, while a positive work attitude, ethical judgment, initiative and motivation, and empathy were rated highly for success in any veterinary position.⁴³ Australian employers considered honesty, the ability to gain the respect and confidence of clients, and knowing limits and being willing to ask for help to be the most essential personal and professional attributes for a newly graduated veterinarian to possess.44 Brown and Silverman reported that problem solving and critical thinking skills were in high demand across all employers, 19 while this and other reports^{20,40} concluded that business skills are important to success in traditional clinical practice as well as to the financial security of the profession itself.

The Team

The role of teamwork in the veterinary workplace was highlighted in the finding by Moore and colleagues that a toxic team environment was negatively associated with job satisfaction and positively associated with exhaustion and cynicism,⁴⁵ and it should be noted that the ability to work in a team is a component of all of the employability models mentioned thus far. The role of the veterinarian as an inter-professional team worker³⁹ and the challenges associated with team communication, particularly given the need for a collaborative case management due to the evolution from single-vet to multi-vet workplaces,³⁹ mean that the ability to work in a team may be more essential than ever. The veterinary team is diverse and includes stakeholders with different roles-employers will often work alongside their employees in the course of a day in practice—and positive and collaborative interactions with nursing and support staff are essential for efficient and safe clinical care.

The Employee

In contrast to traditional competence-based approaches, the expectations and perceptions of the graduate employee—the self—are central to a definition of employability that includes success and satisfaction in employment. The attributes perceived to be most important for success have been explored in several surveys of veterinarians, including recent graduates. ^{24,40,46–48} Heath and colleagues

found that veterinary graduates in their second year of work considered the ability to gain the respect and confidence of clients, being able to communicate ideas, confidence, problem solving, skill in handling animals and people, and honesty and integrity to be the most important characteristics of "a successful veterinarian."^{46(p.11)} Communication skills, diagnostic skills, and practice management skills were regarded as the most important skills for success in veterinary practice by alumni from one US college.⁴⁸

Other studies have examined the attributes underpinning successful transition from university to workplace, a key aspect of employability on the graduate context.⁴⁹⁻⁵¹ Communication skills, 49-51 self-confidence and self-efficacy, 49,51 and decision making and problem solving^{49,50} were common capabilities that emerged as important. Difficulties experienced during the transition to practice include gaining commercial and financial awareness, managing and prioritizing time and workload,52,53 evaluating personal performance and coping with the volume of work,53 and communicating with clients.⁵³ Although most stakeholder surveys surprisingly rank business and practice management as being of lower importance, these skills are consistently noted as a deficiency in graduates that would have eased the transition from veterinary school to working veterinarian. 40,50,52,53 Bachynsky and colleagues highlighted the mismatch between UK employers' and graduates' perceptions of business skills and reiterated the importance of these financial aspects of communication and of having the confidence to charge appropriately for services.⁵⁴

The factors contributing to veterinary employee satisfaction are less well explored. Personal resources, such as self-efficacy and proactive behavior, and job resources, including opportunities for professional development and skills latitude, were positively related to work engagement in Dutch veterinarians, while workload, exhaustion, and work-home interference contributed to burnout.55 Shaw and colleagues showed that veterinarians' satisfaction with companion animal visits correlated with self-esteem and degree of empathic concern and that building relationships with clients could contribute positively to satisfaction.⁵⁶ An appraisal of sources of satisfaction for veterinarians found these included the intellectual challenge and variety of veterinary work, helping clients and animals (thus deriving meaning), and positive interactions with work colleagues.⁵⁷ This aligns with Heath's finding that graduate veterinarians gained satisfaction from "achieving a good result in a challenging professional situation, to improving professional competence, and/or being able to communicate with, help, and gain the acceptance of clients."58(p.48) The relative paucity of literature relating to veterinary work satisfaction perhaps illustrates that most disciplinary research in mental health has not focused on success and well-being but on the factors relating to distress and burnout. 40,55

The Client

As the stakeholder directly contracting the services and expertise of a veterinarian, the client's expectations must be considered in veterinary employability. Furthermore, communicating with clients is an area of difficulty for graduates,⁵² and difficult client relationships and demanding clients can negatively impact veterinarians' mental well-being.^{59,60} Various studies of client satisfaction have found that clients prefer veterinarians who are personable and professional; possess excellent communication skills; treat clients with respect, kindness, and compassion; listen to their clients; practice relationship-centered care; and display empathy. $^{61-64}$ A widely cited industry report found that the most significant factors for pet owners when choosing a veterinarian were that the veterinarian was kind and gentle, respectful, and informative. 19 Aspects of communication including client education, providing choices, initiating discussion of costs, listening, and respectful partnership were a key area of expectation for client focus groups,65,66 while client satisfaction with consultations has been associated with the use of empathic statements, friendliness, and warmth.⁶⁷ When asked what constitutes a good vet, UK clients responded that knowledge about veterinary medicine and surgery, being good with animals, compassion for patients, and cleanliness were very important.⁶⁸

The Profession

Though not directly an employer, the broader profession must be considered an essential stakeholder in veterinary employability, since the profession (and its societal contract) defines the normative values and behaviors that are expected in a veterinary professional. These values and behaviors constitute professionalism, though as noted by Mossop, this concept has proved difficult to define in both medical and veterinary education.³⁸ Veterinary professionalism is an important area that has gained increasing recognition in recent years, particularly through an increased focus on teaching and assessing professional skills, in an effort to better prepare graduates for working life and to satisfy the expectations of the public and the profession regarding veterinarians' behavior. Professional skills (often termed non-technical skills) represent a broad category of capabilities that are possessed by a professional or a "good doctor"; thus they are tacitly recognized as important to success as a veterinarian. Such attributes might include honesty, altruism, autonomy, personal values, confidence, and awareness of limitations.⁶⁹ Since they share a strong foundation in professional skills, values, and behaviors, veterinary professionalism significantly overlaps the construct of veterinary employability, and it is difficult to conceive of a situation where a decrease in professionalism could strengthen employability. While some professional traits such as honesty or altruism might be seen as counter to success when defined as revenue, the need to balancing such competing interests is an element of both veterinary professionalism and employability.39,69

Veterinary professionalism is, however, often implicitly concerned with the protection of the public from *unprofessional* practice; thus it may present with a different focus and polarity when compared to employability. Professionalism is also fundamentally concerned with accountability to a social contract with others (clients, patients, society) and therefore does not necessarily balance the perspective of all stakeholders, notably the employee.

Thus it possible to conceive of important aspects of employability that might diverge from professionalism as typically defined⁶⁹; for example, that provision of highly professional service to a client and employer might nonetheless result in an employee's dissatisfaction with working life, mental distress, and burnout. Employability also potentially better emphasizes one of the major contextual differences between a veterinary professional and a medical professional: the small business environment underpinning most professional practice and the need to navigate financial as well as clinical decisions.⁶⁹ Thus despite their common professional skillset, the best approach may be to develop employability alongside professionalism as differing perspectives on a shared professional identity.

TOWARD A PEDAGOGY FOR VETERINARY EMPLOYABILITY

The above review of stakeholder expectations suggests that the key capabilities underpinning employability are likely to include aspects such as respectful and empathic communication, teamwork, business awareness, problem solving, self-efficacy and confidence, initiative, motivation, and resilience. However, it is apparent that the evidence needed to inform such a framework is currently insufficient to provide a composite picture of the successful graduate and has only rarely been derived directly from cohorts in an explicit employability context (i.e., graduate employers, clients, graduate employees). Hogan and colleagues noted that

[authors] often fall into the technical expert trap—that is, convinced that they are uniquely qualified to determine what employers need, they ignore what employers say they need. This attitude can focus research in the wrong direction, produce irrelevant advice, and widen the gap between the theory and reality of what is needed to find and maintain employment.^{33(p.14)}

This accusation could potentially be leveled at the veterinary profession, since much of the development of existing competence frameworks has been done by groups composed primarily of faculty or representatives of professional bodies.⁴⁰

In defining veterinary employability, it will also be important to avoid focusing on employment in traditional clinical practice and to remain inclusive of the many potential career paths open to a veterinary graduate. In addition, an employability approach should provide a sense of those capabilities that are considered to be most important for success as a veterinarian, a feature also notably absent from existing competence and attribute frameworks.⁴⁰ Employability pedagogy also needs to be compatible with assessment and feedback, a challenging condition given that a measure of employability is ultimately reliant on perceptions of self and of others and that many underpinning capabilities are recognized as particularly elusive to assessment.² But ultimately most assessments (even those hidden behind objective competency criteria) rightly rely on expert professional judgements,17 leaving many

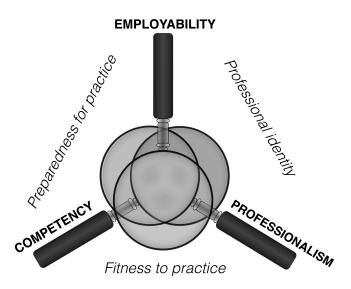


Figure 2: A model of the successful veterinary professional, incorporating the overlapping dimensions of competency, professionalism, and employability, viewed through different lenses depending upon perspective and context

potential stakeholders qualified to assess employability and provide formative feedback that will enhance success and well-being in our veterinary graduates.

As demonstrated above, an argument can be made that the broader construct of employability partially subsumes competency and professionalism within its foundation. Furthermore, a hypothetical comparison of the capabilities important to veterinary competency, professionalism, and employability would find extensive overlap (though likely a different priority order). This poses challenges for how best to incorporate employability approaches into veterinary education without creating confusion around educational outcomes. We propose that one approach may be to present employability, competency, and professionalism as overlapping dimensions of the successful veterinary professional and as different lenses, each bringing their own emphasis to the key capabilities required in different contexts (as shown in Figure 2). This can be illustrated using the example of the task of euthanizing a pet dog. The lens of competency would ensure that the desired outcome had been safely achieved (i.e., that an intravenous catheter had been placed correctly and the correct drug properly administered and that the procedure was effectively communicated to the client). The lens of professionalism might prioritize the owner giving informed consent, the euthanasia being ethically justified, and the client and animal being treated with respect and dignity. Finally the lens of employability might focus on providing a meaningful experience that reinforces an enduring client relationship, demonstrating empathy and compassion without burdening the veterinarian's own well-being and afterwards charging appropriately for the service. All of these elements pertaining to the act of euthanasia may be considered essential in the successful veterinary professional but are prioritized differently by these different contexts and by different stakeholders. In this example, the state of being *highly competent* or *excellent* at this task will be judged by quite different criteria from these different perspectives. As shown by the example, we suggest that the addition of *employability* promotes a more complete and holistic picture of the capabilities and attributes to be developed in veterinary education, while also freeing the dimensions of *competency* and *professionalism* to bring their own important, but now more specific and contextual, perspectives to this composite picture.

CONCLUSION

It is evident that veterinary employability is a multidimensional concept that will prove challenging to precisely define but that has the potential to act as a contextual lens enhancing the development of capabilities that are most important to career success and satisfaction. While we have argued above that employability provides a useful and complementary educational focus beyond threshold competence, attention to veterinary employability should not be seen as competing with competency-based approaches, since the precept that a graduate must be competent is uncontentious and fundamental to health sciences education. In the same way, graduate employers often state they assume a high level of knowledge and technical competence in the modern graduate but prioritize other qualities in selecting prospective employees.⁴¹ Similarly, employability need not detract from the teaching of professionalism, since these are closely aligned and driven by a shared suite of capabilities, values, and behaviors. Rather, we suggest an approach conceptualizing competency, professionalism, and employability as triadic dimensions of the successful veterinary professional. Including employability as an educational goal could instead be seen as another stage in the evolution of veterinary education that is already reflected in trends in competency frameworks,7,22 and similarly reflects evolving conceptions of veterinary professional identity.³⁹ Although current evidence from stakeholders is insufficient to be sure of the key elements of employability in the veterinary context, these are likely to include many of the capabilities highlighted in successive calls to broaden the scope of veterinary education.^{19,21,37} For example, the NAVMEC Roadmap report has emphasized the need to meet stakeholder expectations and the need for professional skills such as self-management and work-life balance,7 capabilities that would surely be reflected in an employability

Employability thus offers a useful guiding objective, aligned to the current imperatives in veterinary education. It is a useful *word*, since it more neatly encapsulates the breadth of capabilities required by graduates than clumsy phrases such as *non-technical competences* or *skills, knowledge, attitudes, and attributes*. It is a useful *construct*, since it potentially unifies and balances the expectations of multiple stakeholders and better reflects the many hats a veterinarian must wear rather than approaches based primarily on what a veterinarian should be able to do.²² It is a useful and important *educational goal*, since it encapsulates the vital objectives of professional success, satisfaction, and well-being. Thus an employability ap-

proach has the potential to enrich veterinary education by providing a complementary focus on success and sustainability in the profession. Ideally, this will enable thriving graduates who continue to adapt and grow throughout a long and satisfying professional career, benefiting themselves, their families, and the people and animals they serve.

REFERENCES

- May SA. Modern veterinary graduates are outstanding, but can they get better? J Vet Med Educ. 2008;35(4):573-80. http://dx.doi.org/10.3138/jvme.35.4.573.
 Medline:19228911
- 2 Hodgson JL, Pelzer JM, Inzana KD. Beyond NAVMEC: competency-based veterinary education and assessment of the professional competencies. J Vet Med Educ. 2013;40(2):102–18. http://dx.doi.org/10.3138/ jvme.1012-092R. Medline:23709107
- 3 Royal College of Veterinary Surgeons (RCVS). RCVS Day One Competences [Internet]. London: RCVS; 2014 [cited 2017 June 1]. Available from http:// www.rcvs.org.uk/document-library/day-one-competences/day-one-competences-updated-26-march-2014.pdf.
- 4 Talbot M. Monkey see, monkey do: a critique of the competency model in graduate medical education. Med Educ. 2004;38(6):587–92. http://dx.doi.org/10.1046/j.1365-2923.2004.01794.x. Medline:15189254
- 5 Brooks MA. Medical education and the tyranny of competency. Perspect Biol Med. 2009;52(1):90–102. http://dx.doi.org/10.1353/pbm.0.0068. Medline:19168947
- 6 Brightwell A, Grant J. Competency-based training: who benefits? Postgrad Med J. 2013;89(1048):107–10. http://dx.doi.org/10.1136/postgradmedj-2012-130881. Medline:23019588
- 7 North American Veterinary Medical Education Consortium (NAVMEC). Roadmap for veterinary medical education in the 21st century: responsive, collaborative, flexible [Internet]. Washington, DC: NAVMEC; 2011 [cited 2017 June 1]. Available from: http://www.aavmc.org/data/files/navmec/ navmec_roadmapreport_web_booklet.pdf.
- 8 Lewis RE, Klausner JS. Nontechnical competencies underlying career success as a veterinarian. J Am Vet Med Assoc. 2003;222(12):1690-6. http://dx.doi.org/ 10.2460/javma.2003.222.1690. Medline:12830860
- 9 Bok HGJ, Jaarsma DADC, Teunissen PW, et al. Development and validation of a competency framework for veterinarians. J Vet Med Educ. 2011;38(3):262–9. http://dx.doi.org/10.3138/ jvme.38.3.262. Medline:22023978
- 10 Royal College of Veterinary Surgeons (RCVS). Essential competencies required of the veterinary surgeon [Internet]. London: RCVS; 2001 [cited 2017 June 1]. Available from: https://www.rcvs.org.uk/document-library/day-one-skills/DayOneSkills.pdf.
- 11 American Veterinary Medical Association (AVMA). Accreditation Policies and Procedures of the AVMA Council on Education [Internet]. Schaumburg, IL: AVMA; 2016 [cited 2016 May 5]. Available from:

- https://www.avma.org/ProfessionalDevelopment/ Education/Accreditation/Colleges/Pages/coe-pp.aspx.
- 12 Walsh DA, Osburn BI, Christopher MM. Defining the attributes expected of graduating veterinary medical students. J Am Vet Med Assoc. 2001;219(10):1358–65. http://dx.doi.org/10.2460/javma.2001.219.1358. Medline:11724169
- Miller RB, Hardin LE, Cowart RP, et al. Practitionerdefined competencies required of new veterinary graduates in food animal practice. J Vet Med Educ. 2004;31(4):347–65. http://dx.doi.org/10.3138/ jvme.31.4.347. Medline:15551229
- 14 Vandeweerd J-M, Cambier C, Romainville M, et al. Competency frameworks: which format for which target? J Vet Med Educ. 2014;41(1):27–36. http://dx.doi.org/10.3138/jvme.0413-062R1. Medline:24165566
- 15 Collins GH, Taylor RM. Attributes of Australasian veterinary graduates: report of a workshop held at the Veterinary Conference Centre, Faculty of Veterinary Science, University of Sydney, January 28–29, 2002. J Vet Med Educ. 2002;29(2):71–2. http://dx.doi.org/10.3138/ jvme.29.2.71. Medline:12143022
- 16 Lane IF. Professional competencies in health sciences education: from multiple intelligences to the clinic floor. Adv Health Sci Educ Theory Pract. 2010;15(1):129–46. http://dx.doi.org/10.1007/s10459-009-9172-4. Medline:19585247
- 17 Grant J. The incapacitating effects of competence: a critique. Adv Health Sci Educ Theory Pract. 1999;4(3):271–7. http://dx.doi.org/10.1023/A:1009845202352. Medline:12386484
- Fraser SW, Greenhalgh T. Coping with complexity: educating for capability. BMJ. 2001;323(7316):799– 803.http://dx.doi.org/10.1136/bmj.323.7316.799 Medline:11588088
- 19 Brown JP, Silverman JD. The current and future market for veterinarians and veterinary medical services in the United States. J Am Vet Med Assoc. 1999;215(2):161–83. Medline:10416465
- 20 Cron WL, Slocum JVJ Jr, Goodnight DB, et al. Executive summary of the Brakke management and behavior study. J Am Vet Med Assoc. 2000;217(3):332–8. http:// dx.doi.org/10.2460/javma.2000.217.332. Medline:10935035
- 21 Willis NG, Monroe FA, Potworowski JA, et al. Envisioning the future of veterinary medical education: The Association of American Veterinary Medical Colleges Foresight Project, final report. J Vet Med Educ. 2007;34(1):1–41. http://dx.doi.org/10.3138/jvme.34.1.1.
- 22 Collins H. Shedding the blinkers: a perspective on veterinary education. Sydney: Post Graduate Foundation; 1997.
- 23 Viner B. Success in veterinary practice: maximizing clinical outcomes and personal well-being. Oxford: Wiley-Blackwell, 2010.
- 24 Kogan LR, McConnell SL, Schoenfeld-Tacher R. Gender differences and the definition of success: male and female veterinary students' career and work performance expectations. J Vet Med Educ. 2004;31(2):154-60. http://dx.doi.org/10.3138/ jvme.31.2.154. Medline:15181598

- 25 Heath TJ, Lynch-Blosse M, Lanyon A. A longitudinal study of veterinary students and recent graduates 2: views of the veterinary profession. Aust Vet J. 1996;74(4):297–300. http://dx.doi.org/10.1111/j.1751-0813.1996.tb13779.x. Medline:8937671
- 26 Cake M, McArthur ML, Matthew S, et al. Finding the balance: uncovering resilience in the veterinary literature. J Vet Med Educ. 2017;44(1):95–105.. http:// dx.doi.org/10.3138/jvme.0116-025R. Medline: 28206842
- 27 Hatch PH, Winefield HR, Christie BA, et al. Workplace stress, mental health, and burnout of veterinarians in Australia. Aust Vet J. 2011;89(11):460–8. http://dx.doi.org/10.1111/j.1751-0813.2011.00833.x. Medline:22008127
- 28 Heath TJ. Longitudinal study of veterinarians from entry to the veterinary course to 10 years after graduation: attitudes to work, career and profession. Aust Vet J. 2002;80(8):474–8. http://dx.doi.org/10.1111/j.1751-0813.2002.tb12468.x. Medline:12224615
- 29 Oliver B. Benchmarking with a focus on graduate employability: why, how and with what? In Campbell M, editor. Work integrated learning: responding to challenges. Proceedings of the 2010 Australian Collaborative Education Network National Conference; 2010 Sept 27–Oct 1; Perth, Australia. p. 352–357.
- 30 Knight P, Yorke M. Employability through the curriculum. Tert Educ Manag. 2002;8(4):261–76. http:// dx.doi.org/10.1080/13583883.2002.9967084.
- 31 Dacre Pool L, Sewell P. The key to employability: developing a practical model of graduate employability. Educ Train. 2007;49(4):277–89. http://dx.doi.org/ 10.1108/00400910710754435.
- 32 Hinchliffe GW, Jolly A. Graduate identity and employability. Br Educ Res J. 2011;37(4):563–84. http://dx.doi.org/10.1080/01411926.2010.482200.
- 33 Hogan R, Chamorro-Premuzic T, Kaiser RB. Employability and career success: bridging the gap between theory and reality. Ind Organ Psychol. 2013;6(1):3–16. http://dx.doi.org/10.1111/iops.12001.
- 34 Fugate M, Kinicki AJ, Ashforth BE. Employability: a psycho-social construct, its dimensions, and applications. J Vocat Behav. 2004;65(1):14–38. http://dx.doi.org/10.1016/j.jvb.2003.10.005.
- 35 Baumann M, Amara ME, Karavdic S, et al. First-year at university: the effect of academic employability skills and physical quality of life on students' well-being. Work. 2014;49(3):505–15. Medline:24004788
- 36 Holmes L. Competing perspectives on graduate employability: possession, position or process? Stud High Educ. 2013;38(4):538–54. http://dx.doi.org/10.1080/03075079.2011.587140.
- 37 Page-Jones S, Abbey G. Career identity in the veterinary profession. Vet Rec. 2015;176(17):433. http://dx.doi.org/ 10.1136/vr.102784. Medline:25564471
- 38 Mossop LH. Is it time to define veterinary professionalism? J Vet Med Educ. 2012;39(1):93–100. http://dx.doi.org/10.3138/jvme.0411.041R1. Medline:22433745
- 39 Armitage-Chan E, Maddison J, May SA. What is the veterinary professional identity? Preliminary findings from web-based continuing professional development in

- veterinary professionalism. Vet Rec. 2016;178(13):318. http://dx.doi.org/10.1136/vr.103471. Medline:26857071
- 40 Cake MA, Bell MA, Williams JC, et al. 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. 2016;38(6):550–63. http://dx.doi.org/10.3109/0142159X.2016.1173662. Medline:27145182
- 41 Heath TJ, Mills JN. Criteria used by employers to select new graduate employees. Aust Vet J. 2000;78(5):312–6. http://dx.doi.org/10.1111/j.1751-0813.2000.tb11777.x. Medline:10904813
- 42 Danielson JA, Wu TF, Fales-Williams AJ, et al. Predictors of employer satisfaction: technical and non-technical skills. J Vet Med Educ. 2012;39(1):62–70. http:// dx.doi.org/10.3138/jvme.0711.072R. Medline:22433741
- 43 Kleine LJ, Terkla DG, Kimball G. Outcomes assessment at Tufts University School of Veterinary Medicine. J Vet Med Educ. 2002;29(1):32–5. http://dx.doi.org/10.3138/ jvme.29.1.32. Medline:11932838
- 44 Schull D, Morton J, Coleman G, et al. Final-year student and employer views of essential personal, interpersonal and professional attributes for new veterinary science graduates. Aust Vet J. 2012;90(3):100–4. http:// dx.doi.org/10.1111/j.1751-0813.2011.00874.x. Medline:22339122
- 45 Moore IC, Coe JB, Adams CL, et al. The role of veterinary team effectiveness in job satisfaction and burnout in companion animal veterinary clinics. J Am Vet Med Assoc. 2014;245(5):513–24. http://dx.doi.org/10.2460/javma.245.5.513. Medline:25148093
- 46 Heath T, Western J, Lynch-Blosse M. Adapting to the world of veterinary work: profile of a group in their second year after graduation (1991). Aust Vet Pract. 1993;23:11–5.
- 47 Weigel JP, Rohrbach BW, Monroe AC, et al. Evaluation of undergradauate orthopaedic surgical training by survey of graduate and employer veterinarians. J Vet Med Educ. 1992;19:2–5.
- 48 Bristol DG. Using alumni research to assess a veterinary curriculum and alumni employment and reward patterns. J Vet Med Educ. 2002;29(1):20–7. http://dx.doi.org/10.3138/jvme.29.1.20. Medline:11932836
- 49 Rhind SM, Baillie S, Kinnison T, et al. The transition into veterinary practice: opinions of recent graduates and final year students. BMC Med Educ. 2011;11(1):64. http://dx.doi.org/10.1186/1472-6920-11-64. Medline:21939551
- 50 Jaarsma DADC, Dolmans DHJM, Scherpbier AJJA, et al. Preparation for practice by veterinary school: a comparison of the perceptions of alumni from a traditional and an innovative veterinary curriculum. J Vet Med Educ. 2008;35(3):431–8. http://dx.doi.org/ 10.3138/jvme.35.3.431. Medline:19066361
- 51 Gilling ML, Parkinson TJ. The transition from veterinary student to practitioner: a "make or break" period. J Vet Med Educ. 2009;36(2):209–15. http://dx.doi.org/10.3138/jvme.36.2.209. Medline:19625670
- 52 Routly JE, Taylor IR, Turner R, et al. Support needs of veterinary surgeons during the first few years of practice: perceptions of recent graduates and senior

- partners. Vet Rec. 2002;150(6):167–71. http://dx.doi.org/10.1136/vr.150.6.167. Medline:11888109
- 53 Riggs EA, Routly JE, Taylor IR, et al. Support needs of veterinary surgeons in the first few years of practice: a survey of recent and experienced graduates. Vet Rec. 2001;149(24):743–5. Medline:11808656
- 54 Bachynsky EA, Dale VHM, Kinnison T, et al. A survey of the opinions of recent veterinary graduates and employers regarding early career business skills. Vet Rec. 2013;172(23):604–9. http://dx.doi.org/10.1136/vr.101376. Medline:23633459
- 55 Mastenbroek NJJM, Jaarsma ADC, Demerouti E, et al. Burnout and engagement, and its predictors in young veterinary professionals: the influence of gender. Vet Rec. 2014;174(6):144. https://doi.org/10.1136/vr.101762. Medline:24306199
- 56 Shaw JR, Adams CL, Bonnett BN, et al. Veterinarian satisfaction with companion animal visits. J Am Vet Med Assoc. 2012;240(7):832–41. http://dx.doi.org/ 10.2460/javma.240.7.832. Medline:22443436
- 57 Cake MA, Bell MA, Bickley N, et al. The life of meaning: a model of the positive contributions to well-being from veterinary work. J Vet Med Educ. 2015;42(3):184–93. http://dx.doi.org/10.3138/jvme.1014-097R1. Medline:26075621
- 58 Heath T. Experiences and attitudes of recent veterinary graduates: a national survey. Aust Vet Pract. 1997;27:45–50.
- 59 Bartram DJ, Yadegarfar G, Baldwin DS. Psychosocial working conditions and work-related stressors among UK veterinary surgeons. Occup Med (Lond). 2009;59(5):334–41. http://dx.doi.org/10.1093/occmed/ kqp072. Medline:19482885
- 60 Bartram DJ, Yadegarfar G, Baldwin DS. A cross-sectional study of mental health and well-being and their associations in the UK veterinary profession. Soc Psychiatry Psychiatr Epidemiol. 2009;44(12):1075–85. http://dx.doi.org/10.1007/s00127-009-0030-8. Medline:19294320
- 61 Greenberg H, Stupine B, Dunn K, et al. Findings from a client satisfaction survey for a university small animal hospital. J Am Anim Hosp Assoc. 1992;28:182–4.
- 62 Case DB. Survey of expectations among clients of three small animal clinics. J Am Vet Med Assoc. 1988;192(4):498–502. Medline:3372299
- 63 Martin F, Ruby KL, Deking TM, et al. Factors associated with client, staff, and student satisfaction regarding small animal euthanasia procedures at a veterinary teaching hospital. J Am Vet Med Assoc. 2004;224(11):1774–9. http://dx.doi.org/10.2460/javma.2004.224.1774. Medline:15198261
- 64 Woodcock A, Barleggs D. Development and psychometric validation of the veterinary service satisfaction questionnaire (VSSQ). J Vet Med A Physiol Pathol Clin Med. 2005;52(1):26–38. http://dx.doi.org/ 10.1111/j.1439-0442.2004.00676.x. Medline:15703008
- 65 Coe JB, Adams CL, Bonnett BN. A focus group study of veterinarians' and pet owners' perceptions of the monetary aspects of veterinary care. J Am Vet Med Assoc. 2007;231(10):1510–8. http://dx.doi.org/10.2460/ javma.231.10.1510. Medline:18020992

- 66 Coe JB, Adams CL, Bonnett BN. A focus group study of veterinarians' and pet owners' perceptions of veterinarian-client communication in companion animal practice. J Am Vet Med Assoc. 2008;233(7):1072–80. http://dx.doi.org/10.2460/javma.233.7.1072. Medline:18828715
- 67 McArthur ML, Fitzgerald JR. Companion animal veterinarians' use of clinical communication skills. Aust Vet J. 2013;91(9):374–80. http://dx.doi.org/10.1111/avj.12083. Medline:23980830
- 68 Mellanby RJ, Rhind SM, Bell C, et al. Perceptions of clients and veterinarians on what attributes constitute 'a good vet'. Vet Rec. 2011;168(23):616. http://dx.doi.org/10.1136/vr.d925. Medline:21642296
- 69 Mossop LH, Cobb K. Teaching and assessing veterinary professionalism. J Vet Med Educ. 2013;40(3):223–32. http://dx.doi.org/10.3138/jvme.0113-016R. Medline:23975066

AUTHOR INFORMATION

Melinda A. Bell, BSc, BVMS, MANZCVS, is a Lecturer in Small Animal Primary Care at the College of Veterinary Medicine, Murdoch University, Murdoch, WA 6150 Australia. Email: M.Bell@murdoch.edu.au. Her research interests include veterinary employability and transition to practice.

Martin A. Cake, BSc, BVMS, PhD, is an Associate Professor teaching anatomy and professional life skills in the College of Veterinary Medicine, Murdoch University, Murdoch, WA 6150 Australia. Email: mcake@murdoch.edu.au. His current research interests include the professional (non-technical) veterinary competencies underpinning employability.

Caroline F. Mansfield, BA, DipEd, MEd, PhD, is a Senior Lecturer in the School of Education, Murdoch University, Murdoch, WA 6150 Australia. Email: caroline.mansfield@murdoch.edu.au. Her research broadly focuses on teachers and students in learning contexts with particular focus on resilience, motivation, emotion and efficacy.