

APEL Reflective Accounts Form (for CAB roles)

Please use this form to record written reflective accounts on all learning and training that you are submitting for APEL and how it relates to the Knowledge & Understanding (e.g. Animal Health and Welfare) sections of the standards. This is set out in the APEL Guidelines, as evidence types A, B, C, and D.

Please be aware that specific examples - and detail - in response to the questions below will allow you to demonstrate your knowledge and understanding much more clearly for Assessors than generic statements.

Use one form for each Knowledge & Understanding section, making sure you do not include any information that might identify a specific client, service user, colleague or other individuals.

Name: Candidate A

Knowledge section/ Knowledge & Understanding number(s): Section 1 Animal Behaviour Elements 1-5

What was the nature of the learning?

1. **Education Provider 1 (EP1) Level 5** - This is an ABTC recognised distance learning course, tutor supported.
2. **Education Provider 2 (EP2) Level 5** - This is an independent behaviourist course and qualification, incorporating distance learning and tutor support through email when required as well as webinars to support learning.
3. **Education Provider 3 (EP3) Course** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
4. **Education Provider 4 (EP4) Course** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
5. **Professional qualifications, accreditations, CPD and experience** - I have been studying since 2014 and have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically.
6. **Education Provider 5 (EP5) FdSc Applied Equine Behaviour** – This was a 2 year full time degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
7. **Education Provider 6 (EP6) BSc (Hons) Equine Science** - This was a 1 year full

time top-up degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.

8. **Education Provider 7 (EP7) MSc Equine Behaviour, Performance and Training** – This was a 2 year part time degree course (due to completing my level 5 DET at the same time) in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
9. **Animal and Human Psychology Based Diplomas** – These diplomas were completed through distance learning, incorporating short answer and essay style answers to a variety of topics.
10. **Education Provider 10 (EP10) Level 4 Canine Behaviour** – This was a distance learning course completed through 16 modules, each focused on short questions on a variety of topics. This course is ongoing.
11. **Topic Related Background Reading** - I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples.
12. **Webinars (Canine Adolescence IMDT, Breed & PMP IMDT, Canine Frustration Education Provider 8 (EP8), Adolescence Mutt Professor, Canine Origins The Wolf In Your Dog – Pets on Film, Genetics of Behaviour – Education Provider 9 (EP9))** - I have been studying since 2014 and have attended a significant number of courses and webinars along with reading and personal experience that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Morag Heirs webinar on 'Reading and Understanding Scientific Papers'.
13. **Education Provider 12 (EP12) Dog Emotion and Cognition** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.

Why did you choose to undertake this learning?

EP1 Level 5

I started this course to have a UK based Degree level Canine qualification that was recognised by the ABTC and would support my original aim of becoming an CAB. The course covers specific topics such as law and animal welfare, and clinical procedures used within the canine industry. I was already very familiar with these approaches from working with and studying horses in a training and behaviour role as well as working in canine training and behaviour roles and environments throughout my career.

I undertook this course because it provided me with the opportunity to undertake self-study alongside given course resources through distance learning while working full time. For each module and question, I completed a large amount of background and wider research. Although the qualification was aimed at level 5, I feel based on my prior level 7 qualification and experience, I was able to go above and beyond in my research for each module. This includes extensive wider reading and referencing and consideration of its practical

application to a variety of case examples and scenarios. The learning undertaken throughout this course encouraged and taught me further how to apply and continue developing my critical thinking skills and to be aware of my biases, if I had any prior to this course, across different topics. For each module I researched and considered the quality of the studies selected, whether they had been peer reviewed, repeated, etc. and how they contributed to the points I was aiming to develop.

EP2 Level 5

This was a 5 module based distance learning course, and my aim was to get a better understanding of dogs and their needs. As I already had equine qualifications, I wanted to gain a canine behaviour based qualification which included a set of 4 modules and the final assignment being a full practical behaviour case with a 5000 word write up report. I was already aware and understood the importance of understanding the components of behaviour modification protocols, report and plan design, therefore this contributed to my current knowledge in the area and further developed my skills as an individual working in behaviour.

EP3 Course

This course was broken down into modules and end of module quiz assessments. My aim was to get a better understanding of cats and dogs (dogs in particular) and their physical and psychological needs. This course provided me with focused discussions and assessments on animal care across a variety of species as well as continuing developing my canine knowledge in particular.

EP4 Animal Behaviour Course

This course was broken down into modules and end of module quiz assessments. My aim was to get a better understanding of Animal Welfare in a variety of animals including pets and farm animals. This course provided me with focused discussions and assessments on welfare across a variety of species as well as continuing developing my canine knowledge in particular when discussing welfare assessments.

Professional qualifications, accreditations, CPD and experience

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. I have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically. When I was selecting CPD opportunities, I chose practical CPD and examinations with the goal to either supplement and broaden my knowledge of a certain area where I feel it may be weaker, or to support and go deeper with what I have already learnt or is relevant to my practice. There are a number of reasons for this which include; personal growth, this being my hobby, a requirement for a former role to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

My experiences as a degree lecturer and MSc student involved many scenarios where critical thinking and evidence gathering was a requirement of the role and running my own business where everyday I read new information, look at its sources, validity, and areas for development in order to support my practice.

EP5 FdSc Applied Equine Behaviour

This course was a 2 year full time in person foundation degree. This course involved many

modules, some animal general such as anatomy and physiology, and more equine specific modules such as introduction to equine behaviour and applied equine behaviour. I chose this course because I have always had a love and passionate interest in animal behaviour, equine specific following early years of equine behavioural rehabilitation and rescue support. I had the goal of wanting to understand the theory behind the process of learning, training, behaviour, welfare, and neurobiological principles specifically.

EP6 BSc (Hons) Top-Up Equine Science

This course was 1 year top up degree in Equine Science, covering a range of topics including, equine fitness and performance, riding coaching and performance, equine welfare and ethics and advances in complementary therapies. At the time, I was wanting to complete a top-up in applied equine behaviour directly, however that course did not run so I completed this top up instead which provided me with a range of theory knowledge and skills that I may not have developed otherwise. This supported me when deciding to apply onto my Masters programme. This course involved a dissertation with a research proposal, reports, critical reviews, debates, abstract writing, presentations and posters.

EP7 MSc Equine Behaviour, Performance and Training

This masters degree course was a 2 year part time course due to me undertaking my level 5 DET qualification at the same time. This course involved a masters thesis creation, applied animal behaviour science modules as well as specific equine training and performance modules, and research methods sessions. The degree was assessed through large scale reports, pilot studies, essays, small studies and presentations. I chose to undertake this degree as it was one of the sole UK based masters degrees with a focus on equine behaviour specifically at the time, supporting my goal of becoming a CAB from the equine perspective as well as canine.

Animal and Human Psychology Based Diplomas (Canine Psychology, Pet Psychology)

These courses were broken down into multiple sections based on topics, and my aim was to get a better understanding of dogs, other pet animals and their psychological needs. There are a number of reasons for undertaking these courses which include; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP10 Level 4 Canine Behaviour

This was a 16 module course that covered a range of canine topics and my aim was to get a better understanding of dogs and their needs. Although there were some topics and discussions within this course that I did not necessarily agree with, the course and tutor gave me the opportunity to portray my view and thoughts using evidence to support and justify my points throughout different assessments. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

Topic Related Background Reading

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural

Medicine for Dogs and Cats. Please see evidence section 10 for further examples. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

Webinars (Canine Adolescence EP2, Breed & PMP EP2, Canine Frustration EP8, Adolescence Mutt Professor, Canine Origins The Wolf In Your Dog – Pets on Film, Genetics of Behaviour EP9)

I have been studying since 2014 and have attended a significant number of courses and webinars that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP12 Dog Emotion and Cognition

This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall. There are a number of reasons why I undertook this course which include; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB. This course allowed me to practise and develop my scientific analytic skills, supporting my understanding of report writing and concise critical examination of information. This course provided me with a deeper understanding of the advances in animal cognition from a leader in this research field. Dogs were well represented in the material, although it also looked at other animals, for example, primates, with some very interesting research discussing self domestication in bonobos.

How is your learning relevant to the Knowledge & Understanding?

The courses discussed above cover all the elements of Animal Behaviour standards K1 to K5. This evidence is also supported by my CPD examples which I believe provides the knowledge requirements asked for by the ABTC to be recognised as a CAB. Throughout my reflective statements below, I have provided some case examples to demonstrate the evolution of my knowledge, understanding and critical thinking skills. Where appropriate I have discussed and checked these cases with other qualified industry professionals e.g. other CAB's.

K1 - The ethology of vertebrate animals, including perceptual abilities, maintenance and social behaviours and communication, their function and their motivational basis in the most commonly kept domestic species.

'Ethology' is the scientific study of the behaviour of animals in their normal environment, including all processes, both internal and external, by which they respond to changes in their environment. Austrian born scientist and zoologist Konrad Lorenz is considered the founder of modern Ethology. His work on the process of 'imprinting' in animals proposed 'animal species are genetically constructed so as to learn information that is important for survival'. The ethology field provides a different perspective through which we are able to

observe and understand animal behaviour in a variety of settings, including a baseline of what is classed as 'normal behaviour' for the given species. This knowledge allows me, as an animal industry professional in the field of training and behaviour, the ability to use a holistic approach to each individual case I encounter. Other key research in ethology to consider is understanding the concept of fixed action patterns or FAP's, and in dogs this has been referred to as Predatory Motor Patterns (PMP's).

In the canine industry for example, the concept of predatory motor patterns or PMP's were initially established by Ray and Lorna Coppinger in the early 2000's as a method of explaining breed specific behaviour based on the roles breeds have been developed for over the centuries. The canine PMP includes the following; Orient -> Eye -> Stalk -> Chase -> Grab-Bite -> Kill-Bite -> Dissect -> Consume. Through selective breeding over several centuries, dogs were selected for particular characteristics that made them effective at undertaking and performing certain roles required by humans. These characteristics are demonstrated with the PMP above. Following this process, certain breeds had aspects of their PMP exaggerated, while others had their PMP inhibited to suit the needs of a given role, through selective breeding of individual dogs that demonstrated these particular desired traits.

For example, border collies being bred for herding and having the Eye -> Stalk -> Chase aspects of their PMP exaggerated through selective breeding to make them effective in his role. In comparison, breeds such as Anatolian Shepherds were bred for livestock guarding, therefore through selective breeding, they have had their PMP inhibited, decreasing the expression of any predatory behaviour when around prey animals. As well as using this knowledge to understand breed specific behaviour, particularly in working roles, this knowledge can highlight the impact of a dog's PMP when not able to express the behaviours they have been bred for. For example, if a border collie is not in a working role or provided activities in which they can express these behaviours, frustration could develop, and potential anxiety, leading to these selected characteristics being displayed out of context e.g. car chasing as well as an increase in over arousal more frequently and frustration in a variety of scenarios. Although in an individual case, there may be more factors influencing the dog's behaviour and other aspects of the aetiology, understanding the above can contribute to an all-round understanding of the case, the motivation, function and reinforcement behind it.

Although focusing on breeds to an extent can allow some practitioners to forget about the individual dog in front of them, this knowledge can also be highly beneficial when focusing on whether the needs of the individual dog are being met and if not, how is this contributing to behaviours observed and deterioration of emotional state. Therefore, incorporating this knowledge into practice can be highly beneficial when combined with focus on individuality.

The above courses provided detailed information on animal learning and how they are able, through their perceptual abilities, to adapt to their environment and how they communicate through a range of communication signalling systems, including audible (barks, growling, whinnying, neigh, nicker, squeals), olfactory (sexual status, friend or foe) and visual (body language/posture snarling, lip licking, arched back, pilo-erection, ears back, tail swishing etc).

An additional consideration when discussing animal behaviour in inter- and intra- species interactions is that calming signals, over which professionals question their accuracy, and body language must always be taken in the context of the environment and the activity that is taking place at the time when discussing the aetiology of particular behaviour.

- **K2 - How to recognise, evaluate and report on the behavioural states of the most commonly kept domestic animals and those that most commonly contribute to the caseload of a Clinical Animal Behaviourist, to include signals indicative of key behavioural states such as fear, nervousness, aggression, ill-health, threat-reduction, play and relaxation.**
- **K3 - Behavioural ontogeny; to include sensitive periods, socialisation and attachment theory.**
- **K4 - The interaction between biological and evolutionary influences and the environment in which an animal is kept, and their roles in the development of behavioural disorders for a range of the most commonly kept domestic animals.**

The course by EP3 was mixed species, with a greater emphasis on cat behaviour, ethology, domestication, and genetics. Although my specialism is in dogs and horses rather than cats, this provided me with additional knowledge in the area of domestication, ethology and genetics that I can then apply to other species and expand my understanding in the wider animal context. I supported this course with additional reading together with other papers and materials.

All the above courses provided information on animal development at key stages over their lifetime. However particular attention was given to the sensitive/socialisation periods and their importance in the development of well-rounded pet dogs. Historical research in the topic area discovered the critical period of socialisation in puppies. In modern research, this term has now been interchanged for the sensitive period for socialisation.

Morrow *et al.* (2015) studied the age at which the fear-avoidance response emerges in puppies. This knowledge is important as we work with puppies and have influence on the owners and their puppy's development at a key stage of life. If we can avoid placing puppies in scenarios where they experience high levels of fear, we can teach effective coping strategies when interacting with novel stimuli and environments to set them up effectively for new experiences in later life and reducing the risk of fear based behavioural issues in adolescence and adulthood.

The EP2 Puppy Course, and additional background reading discussed the topic of ethology and developmental periods including sensitive/socialisation periods in a mix of species. My education has also highlighted and emphasised the importance of understanding the influences of different stimuli on animal behaviour at early ages, in relation to how those experiences may affect an animal's behaviour and interaction with different stimuli in later life. The courses and experiences above highlighted the work of John Bowlby and others examining attachment theory. Attachment theory may be an effective method to explain behaviour in people as well as other animal species.

Through the creation and establishment of Attachment Theory in the 1950's, John Bowlby created four categories/levels of attachment: secure attached, insecure attached, insecure avoidant and insecure ambivalent. Attachment theory gives one useful explanation for a behaviour such as aggression towards people, which is more likely due to a lack of trust in the owner, which could allow this theory to act as a challenger for the incorporation of dominance theory as a description of animal behaviour. Dominance theory has led to the use of aversive methods to control an animal, and this has the potential to lead to animal abuse due to the master/leader, submissive relationship. This approach could break down the animal-human dyad, potentially risking injury and harm to either individual due to the need for the human to seek control over the animal. This approach was not only unique to dog owners but in other animal human dyads, such as how common the concept of dominance was incorporated in the equestrian industry and horse-human relationships. The above courses have previously proposed a suggestion that attachment disorders in people towards other people in their lives or animals is one of several theories as to why people may hoard animals. Further research from my perspective would be interesting to explore this theme further. Other research incorporating the concept of attachment styles into human-animal relationships is the Ainsworth Strange Situation Procedure which has been used to examine human-canine relationships across different demographics e.g. pet dogs, assistance dogs (a role which requires a strong relationship).

Through my theoretical and practical study as well as professional practice, I use my knowledge of body language (canine and equine) to help analyse animal behaviour in a variety of scenarios and environments. This understanding informs my practice through allowing me to identify what behavioural state the animal is in, followed by ideas and methods to support and manage this behavioural state from the perspective of the animal and owner. These behavioural states can include fear, nervousness, aggression, ill-health, threat-reduction, play and relaxation, all those that would commonly contribute to the caseload of a Clinical Animal Behaviourist.

Through my theory study for dogs, the EP1, EP2 and Canine Body Language Courses informed my understanding of the variety of body language indicators that, as a professional, I should be comfortable with identifying and recognising. This includes using images, videos, real life observations and background reading. For equine body language and recognition of behavioural states, I undertook many hours of video and real observations in the form of video assessments, ethogram data collections and yard based observations as part of my FdSc, BSc, and MSc programmes as well as my practical experience. I have also worked with many horses that are fearful of humans, tack, certain environments and other horses, present with anxiety in different environments, aggression towards people, horses, and other stimuli as well as play, and threat reduction.

Through my canine and equine practice, I have conducted behaviour assessments, training cases, and BMP's that were all followed by report write ups and case examinations. These reports were shared with other professionals and owners in order to convey information regarding the individual cases, and provide written processes for how to support both members of the dyad as well as other stakeholders involved.

K5 - The process of domestication and its effects on the behaviour of animals and the common interactions between animals and humans and how these can contribute to the development of problematic owner/animal relationship, to include animal abuse, abandonment, animal-hoarding.

The concept of Domestication across different animal species and how it relates to behaviours we observe in modern environments is very interesting to discuss and important to understand as a training and behaviour based professional. Domestication has been shown to affect both animal behaviour and morphology, the study of biological form and structure in animals and plants. Throughout the development of our understanding of canine domestication as a species specific example, there have been different explanations of how dogs came to be domesticated. For example, one explanation is Coppinger's theory of canine domestication through a process of natural selection, where the least fearful animals learned to thrive living around human encampments. A second example of how canine domestication occurred and its impact on behaviour, is the Russian silver fox experiment, originated by Dmitri Baylev. The silver fox experiment illustrates the impact of selection and domestication on the morphology as well as behavioural traits of dogs such as fear and aggression (the foxes for the experiment were selected on flight distance only). However, there is debate over at what the speed of the behavioural and morphological changes were as technically the starting population of foxes were not completely wild, but from many generations of captive fur foxes.

As a third explanation in regards to domestication, Darwin's theory of natural selection (survival of the fittest), and its further refinement such as the theory of sexual selection have been highlighted and studied by researchers including Marion Petrie of Newcastle University and her work with peacocks. Through her research, Marion found that peahens preferred males with a longer train and more eyespots. It could be assumed that to survive long enough to reproduce with those traits (large tails, bright colours etc), an individual must be smarter, fitter and stronger than the average Peacock.

A final explanation of domestication is the process referred to as 'Self-domestication theory' (SDT). SDT refers to a process through which organisms become domesticated as a product or by product of natural selection. SDT has also previously been characterised as a process of selection against particular characteristics such as aggression and more recently , pro-sociality. This theory has been established within human domestication as well as canine and Bonobos. Through the Coursera Course by EP12 and Dr Brian Hare, I learnt so much more regarding the impact of self domestication on canine cognition, communication and behaviour. Research has shown that selection against aggression and aggression related behaviour in a variety of mammal species can have multiple effects on the species morphology, physiology, behaviour and psychology. These changes resemble a multitude of changes present in the domestic animal. This 'domestication syndrome' includes a variety of changes such as cranial shape, brain size, body colouration, activation of the HPA axis and problem solving abilities as stated by Hare et al. (2012) and Trut et al. (2009). It is suggested that this syndrome is a by-product of selection against aggression.

For Dogs, this is highlighted in 'self-domestication' of the species in the absence of intensive breeding by humans, where less aggressive and fearful wolves gained a selective advantage if those in the species that did not possess these traits, as they were able to approach human settlements at an 'easier rate'. This could have allowed exploitation of novel ecological opportunities including access to human faecal and food waste. Overall, the domestication of the species demonstrates behavioural changes that are important to understand for management and care of the modern day dog including understanding inter- and intra- species relationships and avoiding the use of outdated methods based on the master-, alpha- style role of the human in the dyad.

Through equine domestication, there has been a similar use of the 'leader' type role of the human/owner/trainer and a similar negative impact of this perception and approach on the welfare and behaviour of the horse in response. This approach can also have a great impact on the health and safety of both members of the dyad. Therefore, understanding how domestication affects modern day equine behaviour is vital in promoting welfare, implementing species effective and positive training and behaviour methods as well as maintaining the safety of all members involved in these processes.

In my experience, including my role as a Equine and Canine Trainer and Behaviour Technician role, as well as HE lecturer and course manager, I have owned and worked with many animals, having personally cared for or worked with dogs and horses. I completed courses at EP5, EP6, EP1 and EP2 as well as other online courses and the experience and knowledge I have gained over many years has helped build on my core courses.

Briefly provide specific examples of how this learning demonstrates your Knowledge & Understanding

While working in the canine industry, many of the problem behaviours encountered might be considered as normal and useful for the species living in their 'natural environment'. However, with a lack of hard selection pressures of natural and sexual selection, domestication has produced what some may refer to as 'quirks' or 'undesirable behaviours' in pet animal behaviour that owners perceive as problematic. An example of this could a FAP/MAP/PMP such as chasing small animals which would be considered imperative for survival in a dogs natural environment. For horses, this may appear in the form of vocalisations to other horses if separated. These examples can be considered 'normal behaviour' for these species.

When presented with specific stimuli or environments, some dogs will perform aspects of their PMP when they do not need to or their trigger is not fully present. For example a dog could perform barking or other vocalisations when there is no trigger, or a random surface may trigger the dog to dig and bury, but the surface does not allow this to happen e.g. hard flooring in a house. This could be due to the dog lacking specific enrichment or expression of these behaviours, therefore as they are genetically predisposed to presenting them, they are demonstrated out of context or as a displacement behaviour if unsure how to react. Another example of this in action is when I have been asked by owners to support them with a spaniel who loves to pick things up and carry things around for a large portion of the day.

The owners of this dog were first time owners and thought this behaviour 'abnormal' but for the dog, it was perfectly normal for this breed and I followed this up with enrichment they could add to the dogs routine to provide stimulation.

In horses, this may be demonstrated in an activity such as Trailer or HorseBox Loading. Boxes or trailers are the main way horses are able to be transported nationally and internationally, however the majority of horses when presented with them for the first time or if they have had a bad experience with them, experience increased levels of stress, anxiety and fear, resulting in them moving backwards away from the vehicle or not moving and planting their feet. This is an example of the horse fight or flight response and HPA axis process. It is important to remember and educate owners that horses, although large animals, are still prey animals. This means that it is likely they will react through flight by moving away from the novel stimuli and demonstrate a stress response. However this is not always remembered or known by the owners, which results in the owners and others using force and punishment to move the horse onto the trailer. For the horse, this could establish a negative association and conditioned emotional response to the process of loading and the vehicle.

These experiences emphasise the following; before looking for more extreme or unnatural reasons for an animal's behaviour, one should always consider the principle of parsimony (Occam's Razor) and search for the simplest explanation or reasoning for a behaviour, with the fewest possible assumptions made first. An example of this is that the behaviour we are observing may just be normal species behaviour. Therefore, we can provide education to the owners on what they can expect and what not to be concerned about.

Understanding the natural behaviour of dogs and horses, including developmental periods, enables me to provide owners with knowledge that can help them understand their pet's behaviour better and reduce unnecessary conflict between the pet and the care giver.

EXAMPLE 1

I worked with a case in which the dog was beginning to growl and almost go to nip at the male father figure in the household when going to take a non dog item out of their mouth but not the females in the household. The female owners said drop and the dog dropped the object.

These specific owners believed that their dog was presenting 'dominance' and working their way up the 'hierarchy' in the house. Following history collection, it was shown that one owner had a relationship with the dog based on threat and coercion (the father), pulling the item out of the dogs mouth and a firm tone, and the other was much more inclined to use food and treats and was much more relaxed about the dog's behaviour (mother, 1 daughter, 1 son).

This dog was growling at the male owner who was the main disciplinarian of the house and who felt they needed full control over the dog and its behaviour. The male owner also felt they needed the dog to always be on its best behaviour and used what they could to

complete this. The female owners tried to discuss his interactions when taking items off the dog with the father before, however, rather than understanding the dog had its own needs and requirements, conflict had been created between the owner and the dog which resulted in the early erosion of their relationship.

Once I began to work with them, I provided education all family members on canine behaviour, what is normal for the species, and how they could use environmental management such as removing all non-dog appropriate items out of reach of the dog, and a positive tone with rewards to build the relationship between the family and dog. This also included providing examples of enrichment to provide the dog with stimulation and games.

EXAMPLE 2

In a second canine example, I was asked to support a case in which a dog was 'out of nowhere' (over a period of a month), barking and refusing to walk when getting near to the entrance to the nearby park. I asked what their typical walking was, any recent changes to the routine, as well as if the dog had experienced any negative interactions or experiences in this location within the last few months (I have learnt from my above courses that dogs may develop negative conditioned emotional responses and associations to both severe and mild interactions, and if mild this could have begun to generalise to the wider park environment over time).

Through history taking and questioning during consultation, about a month and half ago, the owners had been walking the dog out of the park when the dog had been barked at and almost nipped by another dog. The case dog was not physically harmed but this may have developed into a fear response when near the specific location, making the dog refuse to enter over time. Through working with the owners, we realised this response was only presented when going near the one specific entrance, however the dog was ok going into the park through another route, therefore I suggested the owner use this second route and make the park as positive as possible.

EQUINE EXAMPLE

Many horses do not like clippers when first introduced to the sound, feeling and visual of clippers. As it is a novel item, it is common to see the horse present with stress and a fear response, resulting in some form of fight or flight, typically flight by moving away from the item in a variety of ways e.g. running back, rearing, moving sideways.

I have worked with many horses who react in different ways to clippers, depending on their prior experience with them as well as whether they were reacting to the sight, sound, or touch sensation of the clippers.

With each of these cases and through working with the owners, I provided education on what is 'normal behaviour for horses when exposed to novel stimuli', reassured them that it can be worked on and the horse have a more positive experience with the clipping process through modification protocols that were worked through together, providing both in person, written and digital support for the owners.

PERSONAL OWNING EXAMPLE

I personally have a family rescue dog, a chocolate labrador who was 3 when adopted by my parents. It was their decision to rescue and Poppy lives with them 100% of the time so I see her when I visit. This was the first dog my parents had by themselves as adults, so they asked me questions about her management, care, behaviour, and husbandry needs. I understand that I must make sure the dog's needs have been met and therefore provide my family with resources as appropriate. I have done this by always suggesting my parents provide a safe environment /space away from my dogs and appropriate enrichment activities, places to explore, games that involve grabbing and biting when appropriate e.g. ball games, and sniffing behaviour opportunities.

How did this Knowledge & Understanding change or improve your practice? Please ensure you provide examples/detail to support your answers.

Over the last 4 years, I have run my own group training classes, 1-2-1 training sessions and 1-2-1 behaviour support sessions. I have also run classes for my students to teach them to become trainers and training instructors. Throughout my experiences, I always make sure to keep up to date with the latest research and evidence based developments in both training and behaviour cases. If I didn't do this, I would risk the health, safety and welfare of my clients and their dogs by using outdated methods. Therefore, it is imperative I continue learning and expanding my knowledge and practice.

Following this learning, my approach to working with dogs and horses has changed. For example, with my updated behaviour knowledge, I aim to add the opportunity for the animal to have choice in their environment, particularly allowing some freedom to decide how to regulate their emotions and respond to a stressful scenario. An example of this would be to provide a dog with a 'safe haven' location to take themselves when they may feel stressed or are nervous. This location is somewhere where they are not interfered with by their owners or people visiting and has additional enrichment for them to enjoy. For horses, this would look like training in an relatively open environment where possible e.g., arena, allowing the horse to move away if they need to, and regulate their response to novel or stress inducing stimuli.

Having a greater knowledge of Animal Behaviour helps me communicate better with my clients. Normalising behaviour and changing mindsets/habits especially when the client feels that the animal's behaviour is either abnormal, when normal, or they believe in older methods or understanding. For example, where the dog may be behaving in a way to establish itself as the 'pack leader' of the house. For horses, I sometimes need to remind owners that horses are prey animals and what appears as 'stubborn' or 'unwilling to the owner' may be that they are demonstrating their flight response to what they perceive as a threat or harmful scenario or stimuli. These human perceptions may have also developed due to anthropomorphism.

Developing my equine and canine behaviour knowledge has also shown me the importance of understanding how a species development can alter behaviour at times. For example, if a bitch is in season, she may be more interested in smells and less responsive to human cues

compared to when out of season. Therefore is it highly important that we look at what is normal for a particular species or expected based on behaviour. Then this can be compared to what an owner perceives as 'abnormal' or 'out of character' for their animal.

APEL Reflective Accounts Form (for CAB roles)

Please use this form to record written reflective accounts on all learning and training that you are submitting for APEL and how it relates to the Knowledge & Understanding (e.g. Animal Health and Welfare) sections of the standards. This is set out in the APEL Guidelines, as evidence types A, B, C, and D.

Please be aware that specific examples - and detail - in response to the questions below will allow you to demonstrate your knowledge and understanding much more clearly for Assessors than generic statements.

Use one form for each Knowledge & Understanding section, making sure you do not include any information that might identify a specific client, service user, colleague or other individuals.

Name: Candidate A

Knowledge section/ Knowledge & Understanding number(s): Section 2 Animal Health and Welfare Elements 6-8

What was the nature of the learning?

1. **Education Provider 1 (EP1) Level 5** - This is an ABTC recognised distance learning course, tutor supported.
2. **Education Provider 2 (EP2) Level 5** - This is an independent behaviourist course and qualification, incorporating distance learning and tutor support through email when required as well as webinars to support learning.
3. **Education Provider 3 (EP3) Course** - This short coursera course was run by staff at Edinburgh university and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
4. **Education Provider 4 (EP4) Course** - This short coursera course was run by staff at Edinburgh university and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
5. **Professional qualifications, accreditations, CPD and experience** - I have been studying since 2014 and have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically.
6. **Education Provider 5 (EP5) FdSc Applied Equine Behaviour** - This was a 2 year full time degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
7. **Education Provider 6 (EP6) BSc (Hons) Equine Science** - This was a 1 year full time top-up degree course in person involving a mix of assignment types such as

reports, presentations, posters, modification plans, and essays.

8. Education Provider 7 (EP7) MSc Equine Behaviour, Performance and Training

– This was a 2 year part time degree course (due to completing me level 5 DET at the same time) in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.

9. Topic Related Background Reading -

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples.

10. Webinars (Pain and Behaviour EP2, Service Dogs EP2, Evidence based practice EP8, Animal Welfare Science EP9, Companion animal welfare EP9) -

I have been studying since 2014 and have attended a significant number of courses and webinars along with reading and personal experience that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Morag Heirs webinar on 'Reading and Understanding Scientific Papers'.

Why did you choose to undertake this learning?

EP1 Level 5

I started this course to have a UK based Degree level Canine qualification that was recognised by the ABTC and would support my original aim of becoming an CAB. The course covers specific topics such as law and animal welfare, and clinical procedures used within the canine industry. I was already very familiar with these approaches from working with and studying horses in a training and behaviour role as well as working in canine training and behaviour roles and environments throughout my career.

I undertook this course because it provided me with the opportunity to undertake self-study alongside given course resources through distance learning while working full time. For each module and question, I completed a large amount of background and wider research. Although the qualification was aimed at level 5, I feel based on my prior level 7 qualification and experience, I was able to go above and beyond in my research for each module. This includes extensive wider reading and referencing and consideration of its practical application to a variety of case examples and scenarios. The learning undertaken throughout this course encouraged and taught me further how to apply and continue developing my critical thinking skills and to be aware of my biases, if I had any prior to this course, across different topics. For each module I researched and considered the quality of the studies selected, whether they had been peer reviewed, repeated, etc. and how they contributed to the points I was aiming to develop.

EP2 Level 5

This was a 5 module based distance learning course, and my aim was to get a better understanding of dogs and their needs. As I already had equine qualifications, I wanted to gain a canine behaviour based qualification which included a set of 4 modules and the final assignment being a full practical behaviour case with a 5000 word write up report. I was already aware and understood the importance of understanding the components of

behaviour modification protocols, report and plan design, therefore this contributed to my current knowledge in the area and further developed my skills as an individual working in behaviour.

EP3 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of cats and dogs (dogs in particular) and their physical and psychological needs. This course provided me with focused discussions and assessments on animal care across a variety of species as well as continuing developing my canine knowledge in particular.

EP4 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of Animal Welfare in a variety of animals including pets and farm animals. This course provided me with focused discussions and assessments on welfare across a variety of species as well as continuing developing my canine knowledge in particular when discussing welfare assessments.

Professional qualifications, accreditations, CPD and experience

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. I have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically. When I was selecting CPD opportunities, I chose practical CPD and examinations with the goal to either supplement and broaden my knowledge of a certain area where I feel it may be weaker, or to support and go deeper with what I have already learnt or is relevant to my practice. There are a number of reasons for this which include; personal growth, this being my hobby, a requirement for a former role to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

My experiences as a degree lecturer and MSc student involved many scenarios where critical thinking and evidence gathering was a requirement of the role and running my own business where everyday I read new information, look at its sources, validity, and areas for development in order to support my practice.

EP5 FdSc Applied Equine Behaviour

This course was a 2 year full time in person foundation degree. This course involved many modules, some animal general such as anatomy and physiology, and more equine specific modules such as introduction to equine behaviour and applied equine behaviour. I chose this course because I have always had a love and passionate interest in animal behaviour, equine specific following early years of equine behavioural rehabilitation and rescue support. I had the goal of wanting to understand the theory behind the process of learning, training, behaviour, welfare, and neurobiological principles specifically.

EP6 BSc (Hons) Equine Science

This course was 1 year top up degree in Equine Science, covering a range of topics including, equine fitness and performance, riding coaching and performance, equine welfare and ethics and advances in complementary therapies. At the time, I was wanting to complete a top-up in applied equine behaviour directly, however that course did not run so I completed this top up instead which provided me with a range of theory knowledge and skills that I may not have developed otherwise. This supported me when deciding to apply onto my Masters

programme. This course involved a dissertation with a research proposal, reports, critical reviews, debates, abstract writing, presentations and posters.

EP7 MSc Equine Behaviour, Performance and Training

This masters degree course was a 2 year part time course due to me undertaking my level 5 DET qualification at the same time. This course involved a masters thesis creation, applied animal behaviour science modules as well as specific equine training and performance modules, and research methods sessions. The degree was assessed through large scale reports, pilot studies, essays, small studies and presentations. I chose to undertake this degree as it was one of the sole UK based masters degrees with a focus on equine behaviour specifically at the time, supporting my goal of becoming a CAB from the equine perspective as well as canine.

Topic Related Background Reading

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

Webinars (Pain and Behaviour EP2, Service Dogs EP2, Evidence based practice EP8, Animal Welfare Science EP9, Companion animal welfare EP9)

I have been studying since 2014 and have attended a significant number of courses and webinars that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

How is your learning relevant to the Knowledge & Understanding?

The courses discussed above cover all the elements of Animal Health and Welfare standards K6 to K8. This evidence is also supported by my CPD examples which I believe provides the knowledge requirements asked for by the ABTC to be recognised as a CAB. Throughout my reflective statements below, I have provided some case examples to demonstrate the evolution of my knowledge, understanding and critical thinking skills. Where appropriate I have discussed and checked these cases with other qualified industry professionals e.g. other CAB's. All my main learning to date has involved a range of species including horses, which is the most common species I am likely to encounter as well as dogs. While working as a CAB as well as any form of animal professional, a large part of the work involves assessing behaviour and welfare, particularly whether an animal's needs are being met, and any methods that could be incorporated to fulfil any gaps. Therefore, understanding assessment processes of welfare behaviour is of high importance.

K6 - The key ethological, psychological and physiological concepts that underpin animal welfare.

K7 - The physiological and behavioural indicators of welfare in vertebrate animals and their limitations and how to use these practically to assess welfare in the commonly kept domestic species.

K8 - Welfare considerations in the management and training of animals and in clinical practice.

The EP1, EP2, EP5, EP6, EP7 and EP3 courses provided me with knowledge of animal welfare and why it is important to the role of CAB. Throughout my education and professional practice experiences, I have expanded my knowledge on the challenges that animal welfare continues to face across different species and environments. Evidence has demonstrated these challenges including some the following;

- Religion e.g. different religious perspectives on animal care, use as food and care.
- Early Experiences e.g. what is an individual's early experiences with animals and they were around them more when growing up e.g. pets or farm animals.
- Conditioning and Attitude Theory to Animal Care
- Area of work e.g. what field does a specific work in how would this influence their knowledge, understanding and perception of animal welfare requirements.
- Culture e.g. culture surrounding animal use in different roles including as lab animals, within food production, use in sport (horses, greyhounds), or veganism.

When examining the above challenges from the animals view and perspective, culture does matter as the animals' needs remain firm despite these differences.

When examining welfare within animal clinical practice, training and management, there are still challenges that remain to an animal's needs. In a training example, research has demonstrated the negative impacts of different types of walking restraints for dogs and use of training approaches e.g. some historical approaches for horses, on canine and equine welfare, that can also affect animal behaviour change.

Some methods as discussed above can have a negative impact on the animal's welfare such as the prong collars. When used by certain individuals, there is evidence that this piece of equipment may impact an animal's welfare by using pain/discomfort or the startle response. Another example would be an animal (dog), that has their access to their environment restricted in some way. Within a BMP, I work with the owners to use approaches that can off-set these restrictions and meet the needs of the dog to manage the impact of these restrictions.

From a legal perspective, the starting point is the 2006 Animal Welfare Act.

From a legal perspective, the Animal Welfare Act 2006 was a large part of the UK's promotion of animal welfare care and understanding that animals are sentient, conscious beings that require appropriate care throughout their lives. This 2006 legislation functions to protect animal welfare across a multitude of animal species, including farm, domestic and laboratory animals. The creation of this legislation resulted in the triggering of further animal welfare specific legislation to be established, protecting the animals in human care, whatever role that may entail. Take the 5 Welfare Needs for example, previously the Five Freedoms.

Five Freedoms now Five Needs and other Welfare Frameworks, Coe NEW FRAMEWORK

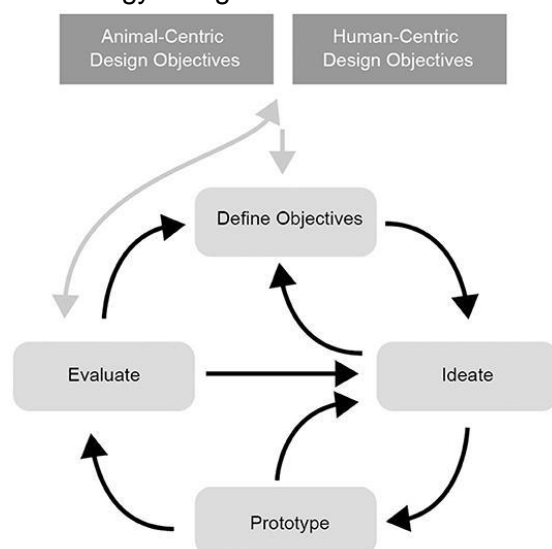
I first became familiar with the 5 Freedoms, what is now referred to as the Five Welfare Needs, during my Level 3 Diploma in Horse Management in 2014. I then developed my knowledge through the subsequent degrees, courses and wider reading. The 5 Welfare Needs includes the following.

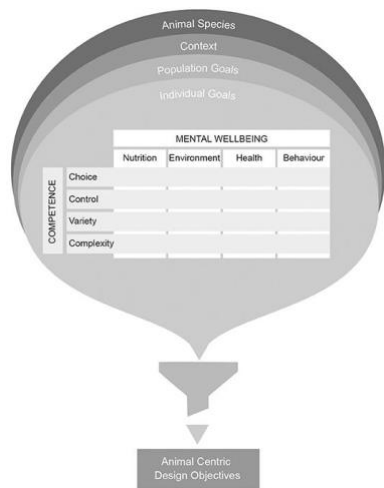
- Need for a suitable environment
- Need for a suitable diet
- Need to be protected from pain, suffering, injury and discomfort
- Need to be able to express natural behaviour
- Need to be housed with or apart from other animals.

The Five Freedoms were changed to the Five Welfare Needs as the phrasing of freedoms was negatively weighted based on 'freedom from' vs 'freedom to' which arguably sets a low standard for welfare. Therefore, using the word 'need' may encourage more precise action and fulfilment of these welfare requirements for owners.

Other research based welfare frameworks including the Duty of Care Framework in Human medicine focuses on enrichment and provision of a safe, happy environment. This style of framework potentially sets a higher standard for welfare for these patients. The Duty of Care Example also encourages legal responsibility by the owner/caretaker, to make sure that they provide their patients with an environment that fulfils welfare requirements. This is similar to the Five Needs and Human hierarchy in animal care as well as Maslow's Hierarchy in human psychology.

A different welfare from the zoo industry (Webber et al., 2022) could be applied to more domestic contexts and species. This framework was created to allow for more animal-centric technology design. This framework focuses on the following model.





This model also focuses on certain criteria and how they are fulfilled in an individual animal's life. These include; Choice, Control, Variety and Complexity. Further research is required to examine this model within the domestic setting to relate it to other published legislation and welfare breakdowns.

Measurement of Animal Welfare

Research focusing on measuring animal welfare has used a range of methods, with more recent research developing a multi-model approach to measuring animal welfare including the following.

Indicators of Welfare State



The animal in its current situation, e.g. frequencies or durations of abnormal behaviour, concentrations of hormones, or body condition



The animal in a decision-making test, e.g. preference tests and cognitive bias tests



The animal's environment or situation, e.g. diet, 'safe haven', weather, or details of husbandry routines.

Evidence based methods including Ethogram creation, can be beneficial when measuring animal behaviour in certain environments. Ethograms can be created before behaviour observation based on species specific behaviours noted in certain environments e.g. in a field, in their enclosure. The ethogram process includes watching and recording an animal's behaviour in its environment and then comparing this in different environments. Behavioural indicators used with an ethogram can include growling, snarling, biting, avoidance/moving away, spinning, mounting, as well as more maintenance behaviours such as eating, drinking, sleeping and walking etc. Ethograms and behavioural observations also have limitations to their use. An ethogram or any other form of behavioural assessment informs the researcher and observer about what the animal is doing or has done without understanding what it really means to the animal and deeper cause behind the action.

In conjunction with ethogram based research, examining welfare through the lens of choice and/or preference tests is becoming more popular in animal welfare research. Research using this approach assumes the animal will choose things, environments, activities etc that make its life better, therefore providing the researcher with a more complex understanding of the needs of the individual from their perspective.

In conjunction with the use of behavioural measures of animal welfare, we can also use physiological responses to environments and stimuli as a measure of welfare. These responses can include changes in heart rate, hormones, immunological, and eye temperature etc. In the majority of animal species, it can be difficult to measure physiological responses, therefore a large amount of research examined the use of behavioural measurement methods. The measurement of physiological responses can also be limited by technology and facilities to analyse these samples. What can be put in place instead is examining what can be perceived as a physiological response through external physiological signs including pilo-erection in dogs. This response can occur when the dog is experiencing a level of physiological arousal, and a demonstration of sympathetic nervous system activation.

A common physiological response to measure in animal welfare assessments is Cortisol levels as an indicator of stress. A limitation of cortisol measurement use is that a raised cortisol measurement is not only caused by a negative experience, but can also be increased by positive, 'exciting', pleasurable events or stimuli. Cortisol levels can also be raised through exercise and physical activity. During my MSc, when focusing on equestrian training and exercise measurements, we discussed this limitation and suggested methods within academic research that could be used in conjunction with or without cortisol to measure the same responses. In some species, the actual action of taking cortisol measurements, though either saliva or blood samples can raise cortisol levels, potentially making the measurement unreliable.

In the majority of animal species, it can be difficult to measure physiological responses, therefore a large amount of research examined the use of behavioural measurement methods. The measurement of physiological responses can also be limited by technology and facilities to analyse these samples. What can be put in place instead is examining what can be perceived as a physiological response through external physiological signs including pilo-erection in dogs. This response can occur when the dog is experiencing a level of physiological arousal, and a demonstration of sympathetic nervous system activation.

In order to gain the most accurate measure of animal welfare in any scenario and point in time, the process will require a multi-model approach when feasible which could include a mix of behavioural and physiological responses

Importance of Maintaining High Levels of Welfare

All of my education, both canine, equine, human and other animals, has continued to promote the highest level of animal welfare in all fields I practise within. As well as

management methods used to support and fulfil animal welfare needs, training for animals can also be highly influential in allowing for husbandry tasks to be undertaken if previously they would have not been able to due to fear, anxiety or stress. This demonstrates how training can promote both the expression of natural behaviour but also allow fulfilment of the need to be protected from pain, discomfort and injury that could occur if their nails aren't cut, they can't be wormed or provided injections. Therefore, I like to include sessions in both my group classes and 1-2-1 sessions focusing on training for husbandry/life skills.

When working within training and behavioural cases, it is highly important to be aware of maintaining animal welfare needs. In practice, this can be linked to how methods such as the Humane Hierarchy promotes animal welfare.

The Human Hierarchy is similar to Maslow's Hierarchy of Needs in that it provides an explanation of need fulfilment as well as how motivation is developed following need fulfilment, affecting responsiveness to handling, training, management and behaviour support. Taking the Human Hierarchy as a framework, this model begins with the provision and monitoring of health, diet and physical environment. This model can be a beneficial tool to provide owners as well as the 5 Welfare Needs Model as a way of explaining what their dog requires in their daily life and encourages them to think of methods of fulfilment for this. Organisations including the ABTC have adopted this method in their own practices and aligns with other models of animal welfare discussed throughout this given evidence.

All my education that I have done and will continue to do reminds me as a professional that pets, as a result of the modern day environment, dogs in particular now live more similar to 'captive animals' due to them remaining at home or in kennels for a large part of the day due to owner work commitments. Due to this environment the dog is kept in, it is more important than ever to provide dogs with species specific outlets for their behaviour wherever possible. The addition of these exercise, enrichment and training methods can support both their physical and mental welfare. This concept should always be discussed with dog owners and educating them on methods that could be put in place as well as focus on understanding canine behaviour and welfare needs.

Impacts of Domestication and the changing world on dogs

Through my practical experience with dogs and horses, academic study and background reading, It has been made clear the impact that domestication and the changing environment around them has had on animal behaviour and welfare needs. I also add this concept to the discussion I have with owners to make them aware of how the process of domestication and the world changing around them has affected the needs of our modern day animals. Examples of this impact include the following;

- Need to express natural behaviours
- Dogs not needing to be in large groups
- Socialisation is of key importance in young dog development
- Develop cognitive skills and abilities.

Through this discussion in the industry, some authors state that dogs are not well adapted

to living amongst humans in modern day society. This can be due to reduction in environmental space, time left at home and an increase in the human population that make the environment as whole more busy and chaotic. It has been made a priority of those in the canine industry to alter canine care based on the aforementioned challenges in order to promote high levels of overall welfare through studying the current day dog and their needs in a busier world where we work with what is available.

In the equestrian industry, this concept is commonly discussed, as many owners base their training and management methods on equine behaviour and needs from when they lived in large un-domesticated groups. In modern day practices, we must acknowledge the impact domestication and wider environmental changes have had on equine behaviour and management approaches including single housed horses and feed type differences. We also need to discuss the differences in needs of horses used in different roles e.g. companion horses versus riding schools versus high level competition horses. For example, horses kept as companions could be kept in more consistent outdoor turnout and monitored regularly with some stable time, giving them more access to grass and forage. In comparison, competition horses could not be fed solely forage based food as this could sit in their gut while they are competing, affecting their performance and ability. However, some competition horses are kept on too much of a restricting concentrate heavy diet, which could lead to ulceration, which has been shown to cause behaviour changes over time relating to being touched and ridden. Overall, for horses it is a regular discussion, researching their needs in the modern day environment and making sure they are all met regardless of what role they are in. This concept is imperative for professionals to be aware of and consider when having discussion with owners on equine welfare states, needs, behaviour and management methods.

Impact of Low Welfare

In my professional practice, my aim is always to promote the highest levels of animal welfare. As well as the promotion of high welfare standards, I also have learnt the impact that low welfare state and need support can have on the development of 'abnormal' or what some owners can call 'undesirable behaviours'. An animal can develop repetitive or even stereotypic behaviours from not having their needs met in their current environment. In an extreme canine example low levels of welfare can lead to the development of abnormal repetitive behaviours, such as pacing, tail chasing, excessive/displacement grooming etc.

One key aspect that I have learnt through my studies, particularly in my EP5, EP6, EP7, EP2, EP1, EP11, Topic related reading and my EP2 accreditation, is the need to carefully select what methods one uses to measure and provide fulfilment of the animals needs. As professionals, animal owners, and members of the public, it is imperative we understand exactly what choices we make in choosing methods for animal care and understand clearly the impact of these choices. This also includes being willing to reflect on our practice consistently and keep our knowledge updated as well being able to explain and justify our actions to owners and other stakeholders.

Within my current role as a HE lecturer and course manager, I took year long practical

sessions for our canine students which involved me teaching students how to train, instruct as well as learning key handling and husbandry tasks required for caring for dogs. This role also included taking care of the kennel dogs on site when required (17-18 dogs at a time) alongside the kennel manager. In my previous roles with horses, I have also been responsible for whole yards and groups of horses, including riding, handling, cleaning and veterinary care e.g. politics, worming and wound cleaning. All this practical experience has added to the progression of my professional practice.

As a part of this role, I also took on the task of licensing our onsite kennels to allow dogs on site for student use in training and handling practices. This process required me to meet the councils and governments guidelines for running canine day-care facilities. Through writing our new kennel policies and working with the council, this provided me with an even greater understanding of the legal implications of animal welfare too.

Briefly provide specific examples of how this learning demonstrates your Knowledge & Understanding

INTRODUCTION

Through my time working dogs and horses, I have learnt the importance of understanding and making sure welfare needs are met and the influence of their management being crucial for effecting behaviour change desired. In conjunction with theoretical and practical knowledge of need management, there are both legal and more implications surrounding animal care that will always need to be considered.

In all of my professional practice, all my clients are not displaying or experiencing any form of pain or discomfort based on the Five Welfare Needs. I always suggest to owners that if they suspect that their animal is experiencing any of the above, that the owners take their pet straight to the vet before any work commences. Once any of the above is eliminated, I then have a discussion with the owners about the training processes we will be using, why we are using them, and for me to provide them with any evidence required to help them understand. I also discuss how to meet animal welfare needs and how training can help or hinder animal welfare. For example, how the use of a slip leads to correcting a dog that is pulling, may be discussed with the potential to cause pain and injury, and what they could use instead that prevents harm.

In order to promote my ethical, moral and legal factors in my practice, I set particular rules in my sessions with owners. For example, in my group classes, I do not allow the following equipment or processes to be used;

- Slip leads
- Choke chains
- Prong collars
- Electronic collars
- Citronella collars

I do recognise that there may be other times when the use of certain equipment such as slip leads is required, for example, human safety in a rescue situation or if a dog has gotten

loose. In these scenarios, I would always keep a spare slip lead in my car in case this was required for the purpose of safety.

I never aim to put an owner down or feel bad about whatever technique they used. My goal is to educate the owner on what may be most effective for them and their animal. However, I will always put the health and safety of my clients first and if I feel this is being harmed or damaged, I will ask the owner to stop and switch equipment types or processes they are using.

EXAMPLE 1- EQUINE

A 4 year old Welsh Section B Mare.

This horse presented with the following behaviours;

- Barging out of stable during leading out
- Kicking at the stable door
- Harassing owners for food during handling activities e.g. grooming
- Strong during turnout

Following examination of the horse's history and lifestyle, we identified that the horse had received much training yet, except wearing a head collar to turn out and catch in with. In conjunction, the horse was only receiving 5 hours of turnout a week, 1 hour every weekday and hand grazing at the weekends due to the yard rules and ongoing building work affecting turnout. The owners were very busy working in corporate jobs and only came briefly morning and evening most days for mucking out and haynets.

By understanding the welfare implications of the environment and applying the duty of care model and the Five Welfare Needs (Animal Welfare Act 2006), we made some changes to the horse's environment, exercise, field time, training and stable enrichment activities.

- As part of the BMP, we made sure that sufficient quiet time to sleep and rest away from other animals and people is provided - effective stable time.
- We addressed the lack of exercise and turnout by increasing her turnout to 4 hours everyday by the owner deciding to move yards (not always feasible but the other was debating whether to do this before starting the process).
- We incorporated additional fun training games into her daily routine e.g. trick, equipment, and husbandry training for a young horse without overloading or overwhelming her. This also included some anti-mugging, anti-barging clicker training techniques that I taught the owners to practise when they go into the stable with her to develop her learning as she gets older.
- We also addressed both training and other activities that she engaged in, such as working for food in toys, chewing/licking toys in the stable and also had discussion with the family around equine behaviour and young horse needs which they stated helped the family understand her needs better.
- These changes alone, as the owners feedback to me and I observed, developed a stronger relationship between the mare and her owners.
- Behaviour changes were observed when she was now in her new stable and the

owners feedback they were seeing, a 'happier' (although anthropomorphic) and more contented horse with improved welfare.

EXAMPLE 2- EQUINE

A second example of a case I have worked with involved a 9 year old Shire cross thoroughbred gelding.

This horse presented as nervous, fearful and stressed when being treated by a vet and farrier. The horse attempted to kick and bite the professionals. I worked with the owner to manage the horses' interactions with these different treatments and professionals in different environments. This included practising husbandry tasks including picking out feet, injection prep, and worming in particular without the horse experiencing additional stress or fear. In this case, the BMP established is imperative otherwise. Not being able to carry-out this care would become detrimental to the horse's overall welfare.

OVERALL

With all my family animals (1 8 year old chocolate Labrador, 2 Mini Dachshunds 2 years old, 5 years old, and 1 4 month old mix breed), and all my clients and their animals, I ensure to educate them when appropriate on the following topics in order to demonstrate and promote fulfilment of the 5 Welfare Needs.

- Access to veterinary care when required
- Safe places away from the family and other animals
- Appropriate shelter/bedding – e.g. dog bed, stable with shavings/straw/matting etc, field time.
- Fresh, age-appropriate nourishment and water
- Appropriate exercise daily
- Species specific behaviour knowledge – use of enrichment to provide mental stimulation.
- Homed with other animals or solo when appropriate.
- Provide play time where he can practise their natural behaviours
- Benefits of a daily routine/schedule

How did this Knowledge & Understanding change or improve your practice? Please ensure you provide examples/detail to support your answers.

When working with the majority of both dog and horse owners, they either did understand the five welfare needs and how they could be impacted through management and practical care or were not aware of the needs and other animal welfare based legislation, such as the Animal Welfare Act (2006). Following this observation, I also have noted through my experience, that if they were not aware or understanding of the 5 welfare needs, they did not understand or were not aware of how they may have, typically unintentionally restricted their animals in their 5 needs within their environment and daily activities. Owners were also not aware of how these restrictions could also impact on their animal's welfare and their behaviour in different environments and scenarios. Based on this observation, I made sure to provide additional owner education during the support process such as worksheets,

handouts, videos and discussions between myself and the owners.

A second example of how my practice has changed based on the K&U standards, includes the incorporation of Humane Hierarchy and LIMA principles into the behaviour modification process as well as into the owner education resources I provide, to create confidence in the owners of my own practice and what we are working through as well as promoting evidence based practice. I also incorporate the principles of the above as well as learning theory into discussions within my training classes as a method emphasising how to meet their dogs' needs and in equine 1-2-1 sessions to highlight the impact of unmet needs on equine welfare. Examples of this include promoting scenting activities, sniffy walks, and fun interactive games within a dogs daily schedule which can act as a positive addition into a dogs life and not something we should think of as abnormal or naughty if they wander or spend time sniffy in the same areas.

APEL Reflective Accounts Form (for CAB roles)

Please use this form to record written reflective accounts on all learning and training that you are submitting for APEL and how it relates to the Knowledge & Understanding (e.g. Animal Health and Welfare) sections of the standards. This is set out in the APEL Guidelines, as evidence types A, B, C, and D.

Please be aware that specific examples - and detail - in response to the questions below will allow you to demonstrate your knowledge and understanding much more clearly for Assessors than generic statements.

Use one form for each Knowledge & Understanding section, making sure you do not include any information that might identify a specific client, service user, colleague or other individuals.

Name: Candidate A

Knowledge section/ Knowledge & Understanding number(s): Section 3 Animal Learning and Training Elements 9-12

What was the nature of the learning?

1. **Education Provider 1 (EP1) Level 5** - This is an ABTC recognised distance learning course, tutor supported.
2. **Education Provider 2 (EP2) Level 5** - This is an independent behaviourist course and qualification, incorporating distance learning and tutor support through email when required as well as webinars to support learning.
3. **Education Provider 3 (EP3) Course** - This short coursera course was run by staff at Edinburgh university and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
4. **Professional qualifications, accreditations, CPD and experience (EP2 Accredited Trainer)**- I have been studying since 2014 and have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically.
5. **Education Provider 10 (EP10) Level 4 Canine Behaviour** – This was a distance learning course completed through 16 modules, each focused on short questions on a variety of topics. This course is ongoing.
6. **Education Provider 11 (EP11) 3110 Understanding Canine Care and Behaviour** - This was a distance learning course completed through 4 main phases (each with a set of approximately 15-20 short questions), on a variety of topics.
7. **Education Provider 5 (EP5) FdSc Applied Equine Behaviour** - This was a 2 year

full time degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.

8. **Education Provider 7 (EP7) MSc Equine Behaviour, Performance and Training** – This was a 2 year part time degree course (due to completing me level 5 DET at the same time) in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
9. **Animal and Human Psychology Based Diplomas** - These diplomas were completed through distance learning, incorporating short answer and essay style answers to a variety of topics.
10. **Topic Related Background Reading** - I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples.
11. **Webinars (Loose lead walking masterclass EP2, Recall EP2, Learning theory explained EP2, Training deaf dogs EP2, Evidence based practice EP8, Training animals for better welfare in zoo EP9)** - I have been studying since 2014 and have attended a significant number of courses and webinars along with reading and personal experience that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Morag Heirs webinar on 'Reading and Understanding Scientific Papers'.
12. **Education Provider 12 (EP12) Dog Emotion and Cognition** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.

Why did you choose to undertake this learning?

EP1 Level 5

I started this course to have a UK based Degree level Canine qualification that was recognised by the ABTC and would support my original aim of becoming an CAB. The course covers specific topics such as law and animal welfare, and clinical procedures used within the canine industry. I was already very familiar with these approaches from working with and studying horses in a training and behaviour role as well as working in canine training and behaviour roles and environments throughout my career.

I undertook this course because it provided me with the opportunity to undertake self-study alongside given course resources through distance learning while working full time. For each module and question, I completed a large amount of background and wider research. Although the qualification was aimed at level 5, I feel based on my prior level 7 qualification and experience, I was able to go above and beyond in my research for each module. This includes extensive wider reading and referencing and consideration of its practical application to a variety of case examples and scenarios. The learning undertaken throughout this course encouraged and taught me further how to apply and continue developing my critical thinking skills and to be aware of my biases, if I had any prior to this course, across different topics. For each module I researched and considered the quality of

the studies selected, whether they had been peer reviewed, repeated, etc. and how they contributed to the points I was aiming to develop.

EP2 Level 5

This was a 5 module based distance learning course, and my aim was to get a better understanding of dogs and their needs. As I already had equine qualifications, I wanted to gain a canine behaviour based qualification which included a set of 4 modules and the final assignment being a full practical behaviour case with a 5000 word write up report. I was already aware and understood the importance of understanding the components of behaviour modification protocols, report and plan design, therefore this contributed to my current knowledge in the area and further developed my skills as an individual working in behaviour.

EP3 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of cats and dogs (dogs in particular) and their physical and psychological needs. This course provided me with focused discussions and assessments on animal care across a variety of species as well as continuing developing my canine knowledge in particular.

Professional qualifications, accreditations, CPD and experience

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. I have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically. When I was selecting CPD opportunities, I chose practical CPD and examinations with the goal to either supplement and broaden my knowledge of a certain area where I feel it may be weaker, or to support and go deeper with what I have already learnt or is relevant to my practice. There are a number of reasons for this which include; personal growth, this being my hobby, a requirement for a former role to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

My experiences as a degree lecturer and MSc student involved many scenarios where critical thinking and evidence gathering was a requirement of the role and running my own business where everyday I read new information, look at its sources, validity, and areas for development in order to support my practice.

EP5 FdSc Applied Equine Behaviour

This course was a 2 year full time in person foundation degree. This course involved many modules, some animal general such as anatomy and physiology, and more equine specific modules such as introduction to equine behaviour and applied equine behaviour. I chose this course because I have always had a love and passionate interest in animal behaviour, equine specific following early years of equine behavioural rehabilitation and rescue support. I had the goal of wanting to understand the theory behind the process of learning, training, behaviour, welfare, and neurobiological principles specifically.

EP6 BSc (Hons) Equine Science

This course was 1 year top up degree in Equine Science, covering a range of topic including, equine fitness and performance, riding coaching and performance, equine welfare and ethics and advances in complementary therapies. At the time, I was wanting to complete a top-up in applied equine behaviour directly, however that course did not run so I completed

this top up instead which provided me with a range of theory knowledge and skills that I may not have developed otherwise. This supported me when deciding to apply onto my Masters programme. This course involved a dissertation with a research proposal, reports, critical reviews, debates, abstract writing, presentations and posters.

EP7 MSc Equine Behaviour, Performance and Training

This masters degree course was a 2 year part time course due to me undertaking my level 5 DET qualification at the same time. This course involved a masters thesis creation, applied animal behaviour science modules as well as specific equine training and performance modules, and research methods sessions. The degree was assessed through large scale reports, pilot studies, essays, small studies and presentations. I chose to undertake this degree as it was one of the sole UK based masters degrees with a focus on equine behaviour specifically at the time, supporting my goal of becoming a CAB from the equine perspective as well as canine.

Topic Related Background Reading

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

Webinars (Loose lead walking masterclass EP2, Recall EP2, Learning theory explained EP2, Training deaf dogs EP2, Evidence based practice EP8, Training animals for better welfare in zoo EP9)

I have been studying since 2014 and have attended a significant number of courses and webinars that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP12 Dog Emotion and Cognition

This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall. There are a number of reasons why I undertook this course which include; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB. This course allowed me to practise and develop my scientific analytic skills, supporting my understanding of report writing and concise critical examination of information. This course provided me with a deeper understanding of the advances in animal cognition from a leader in this research field. Dogs were well represented in the material, although it also looked at other animals, for example, primates, with some very interesting research discussing self domestication in bonobos.

Animal and Human Psychology Based Diplomas

These courses were broken down into multiple sections based on topics, and my aim was to get a better understanding of dogs, other pet animals and their psychological needs.

There are a number of reasons for undertaking these courses which include; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP10 Level 4 Canine Behaviour

This was a 16 module course that covered a range of canine topics and my aim was to get a better understanding of dogs and their needs. Although there were some topics and discussions within this course that I did not necessarily agree with, the course and tutor gave me the opportunity to portray my view and thoughts using evidence to support and justify my points throughout different assessments. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP11 3110 Understanding Canine Care and Behaviour

This was a distance learning course completed through 4 main phases (each with a set of approximately 15-20 short questions), on a variety of topics. Although there were some topics and discussions within this course that I did not necessarily agree with, the course and tutor gave me the opportunity to portray my view and thoughts using evidence to support and justify my points throughout different assessments. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB. Any opportunity to develop my canine knowledge as one of the species I wish and currently am developing my knowledge within, is highly beneficial as demonstrated in the completion of this course.

How is your learning relevant to the Knowledge & Understanding?

The courses discussed above cover all the elements of Animal Learning and Training standards K9 to K12. This evidence is also supported by my CPD examples which I believe provides the knowledge requirements asked for by the ABTC to be recognised as a CAB. Throughout my reflective statements below, I have provided some case examples to demonstrate the evolution of my knowledge, understanding and critical thinking skills. Where appropriate I have discussed and checked these cases with other qualified industry professionals e.g. other CAB's.

- **K9 - The theory of animal learning to include habituation; sensitisation, classical conditioning, operant conditioning, insight and social learning, animal cognition and the concept of consciousness.**
- **K10 - The theory underlying learned problem behaviour and training techniques.**
- **K11 - The principles and rationale behind the use of the range of behavioural modification techniques, to include systematic desensitisation, counter-conditioning and the use of clickers.**
- **K12 - The techniques most appropriate for the treatment of a range of common behavioural disorders and learned problem behaviours, the rationale for their use/application, and the strengths and weaknesses of**

each.

The majority of the above courses including the FdSc, BSc, MSc, EP1, EP2 and webinars focused on the topic of behaviour modification techniques and learning theories. This included the following.

- Advantages and Disadvantages of Modification Techniques
- Habituation
- Operant Conditioning
- Classical Conditioning
- Systematic Desensitisation
- Counter Conditioning
- Shaping – teaching a skill or behaviour in gradual steps, each rewarded, towards a final behaviour.
- Flooding
- Luring
- Capturing
- Modelling
- Overshadowing
- Approach Conditioning
- Stimulus Blending
- Forward Chaining
- Backwards Chaining
- Stimulus Discrimination
- Stimulus Generalisation
- Social Learning and Observation
- Insight Learning
- Latent Learning
- Reinforcement Schedules
- Premack Principle
- Training and the resolution of training and behavioural issues
- Learnt behavioural problems
- Working on particular emotional state based issues including those focusing on fear and aggression.

All my equine and canine courses have focused on teaching the correct application of techniques with a strong emphasis on promoting fear-free and pain-free behaviour modification techniques for any species a professional may be working with. As the above suggests, understanding learning theory is of high priority for a professional working in the field of training or behaviour modification and change. Promoting the need for professionals to have this knowledge and be assessed on it allows me to understand the strengths and weaknesses of the different techniques above that could be incorporated in practical cases based on the individual I am working with.

All the above courses as well as my practical experience and practice demonstrate how The above techniques can be used to undertake behaviour change when used together or separately depending on the case. In each course above, the contents and lecturers

promote a high standard of knowledge of both animal learning and its practical application.

CC and OC

CC and OC are the two most commonly used and applied techniques for training new skills and encouraging behaviour change. Some pet owners use these approaches because they make the most sense when applying the methods. Although very important to understanding and being able to apply, these theories and models paint part of a picture. What should be focused on in conjunction with technical theories, is that animals experience a variety of emotions, develop their own perceptions of environments, stimuli and events and needs that must always be considered instead of focusing purely on learning new skills or behaviours.

Definition of 'Learning' – What is it?

'The acquisition of knowledge or skills through study, experience, or being taught'

Definition of 'Learning Theory' – What is it?

'Learning theories explain the way humans and animals acquire knowledge and how this creates or impacts behaviour'.

(Warburton and Anderson, 2022)

Two types of Learning Theory :-

1. Associative learning

'Process of acquiring new and enduring information via the formation of bonds, connections, or associations between elements. These associated elements may be stimulus and response, mental representations of events, or elements in neural networks'.

2. Non-associative learning

'A process in which an organism's behaviour toward a specific stimulus changes over time in the absence of any evident link to (association with) consequences or other stimuli that would induce such change'.

To start breaking down learning theories, the first to discuss is Classical Conditioning. Ivan Pavlov established the theory Classical Conditioning (CC) through his work with dogs and children during the late 1800's and early 20th Century, focusing on digestive behaviours, leading into the discovery of associative learning.

CC is a form of associative learning, sometimes known as Pavlovian or Respondent Conditioning. The process of CC is a powerful tool when it is well executed during training and behaviour modification. The process of CC can be broken down into the following steps.

1. A Conditioned Stimulus (CS) (a sound) which is a neutral or meaningless stimulus, is presented prior to an Unconditioned Stimulus (UCS) (Food) and produces an unconditioned response (UCR) (salivation).
2. After learning has taken place, the neutral stimulus will elicit the response, which is now called a conditioned response.

Classical conditioning starts with the pairing of an **unconditioned stimulus (UCS)** with a **neutral stimulus (NS)**.

PAIR		
Unconditioned stimulus	Unconditioned response	Neutral stimulus
Dog food	Salivation	Bell

New terms:

- **Unconditioned:** Something that has not been taught. It is natural, instinctive, innate.
- **Neutral:** Something that carries no meaning or relevance.
- **Pairing:** Presenting both items together.

BEFORE training

Eventually, after much repetition, the old **neutral stimulus** becomes a **conditioned stimulus**, as it can now independently trigger a **conditioned response**.

PAIR

Unconditioned stimulus

Unconditioned response

Neutral stimulus

Dog food

Salivation

Bell

Training & repetition

Conditioned stimulus

Conditioned response

Bell

Salivation

- Conditioned:** Something that has been taught, learnt.

New terms:

- **Conditioned:** Something that has been taught, learnt.

BEFORE training

AFTER training

Operant Conditioning (OC) is a learning theory established by Edward Thorndike, B.F. Skinner, and Watson. OC is sometimes referred to as instrumental learning. However, prior to Skinner, Edward Thorndike developed 'Thorndike's Law of Effect' as well as the 'Law of Readiness'.

- **Law of Readiness** – 'A law which states that learning is dependent upon the learner's readiness to act, which facilitates the strengthening of the bond between stimulus and response. Thus, an athlete who is highly motivated and eager to learn is more likely to be receptive to learning than one who is poorly motivated'.

Implication to animal training: to be able to learn the animal needs to be in a state of readiness.

- **Law of Effect** – "responses that produce a satisfying effect in a particular situation become more likely to occur again in that situation, and responses that produce a discomforting effect become less likely to occur again in that situation (Gray, 2011, p. 108–109)."

Implication to animal training: a behaviour that results in a satisfying outcome will be repeated. A behaviour that results in an unpleasant outcome will reduce (Operant conditioned quadrants – reinforcement and punishment)

OC is the most common method used for animal training and where Operant Conditioning Quadrants are discussed. The quadrants are broken down as below.

- **Positive Reinforcement** – the addition of a pleasurable stimulus to increase the likelihood of a behaviour occurring in the future

- Positive Punishment - the addition of an aversive stimulus to decrease the likelihood of a behaviour occurring in the future
- Negative Reinforcement - the removal of an aversive stimulus to increase the likelihood of a behaviour occurring in the future
- Negative Punishment - the removal of a pleasurable stimulus to decrease the likelihood of a behaviour occurring in the future

Positive here refers to the addition of something and negative is the removal of something. This is described as learning through consequences.

Marking a behaviour is also a vital skill to develop during method practice. Marking a behaviour involves using a mechanical device such as a clicker, whistle or a verbal marker such as a word or a sound, to 'mark' the moment in time the behaviour the handler is looking for occurs, and immediately follow the marker with a reward, whether food, toys or attention. Through the process of classical conditioning, the marker becomes conditioned to predict a reinforcer and over time, the animal learns that the marker is not only a signal that reinforcement is coming, but that it can change their behaviour to influence the marker timing and frequency.

When implementing Operant Conditioning into a training or BM programme, particularly if using positive reinforcement, we are able to teach an animal a large variety of new skills. If used correctly by an experienced practitioner, this technique can also be used with animals that are fearful too and aim for a classically conditioned side-effect, hence the term "Pavlov is always on your shoulder" e.g. Counter Conditioning. If I was working with an animal who presents with fear or anxiety towards a given stimuli or event, I would incorporate much smaller incremental steps and aim for a high rate of reinforcement more regularly used. SEE BRIEF EXAMPLE FOR BREAKDOWN OF STEPS.

Another concept with learning theory literature and practice includes Reinforcement schedules (RS). RS explain the timing and amount of repetitions of which you provide reinforcement during training, building duration, distance and distractions to a behaviour.

- Specific rules that are used to present (or to remove) reinforcers (or punishers) following a specified operant behaviour.
- Defined by the time and/or the number of responses required in order to present (or to remove) a reinforcer (or a punisher).

RS includes the following.

- Five Schedules of Reinforcement – used in different situations and at a variety of points throughout training.
- 1. FR – Fixed Ratio (only deliver after a fixed number of trials/repetitions)
- 2. VR – Variable Ratio (only deliver after a random number of trials/repetitions)
- 3. FI – Fixed Interval (only deliver after a set period of time)
- 4. VI – Variable Interval (only deliver after random periods of time)
- 5. C - Continuous (delivered after every response)

For behaviour change, we can use techniques to replace undesirable behaviour with a desirable behaviour that achieves the original consequence/reinforcer, if not, then we have other options such as differential reinforcement of other behaviour (DRO) and differential reinforcement of incompatible behaviour (DRI).

When describing training methods for owners, Operant Conditioning seems to be effective for many owners to understand and implement, particularly when focusing on 'reinforcing a behaviour that you want or are looking for'. The main limitation with Operant Quadrants with OC is how if understood incorrectly or implemented inaccurately, it could lead to the use of punishment. If poorly applied, punishment techniques can create frustration in the learner and reinforce/strengthen undesirable behaviour. Another risk would also be for an animal to experience learned helplessness and at some point in the future, an animal presenting with a larger emotional response, risking the health and safety of people and animals involved.

When examining animal training and learning methods, it is important to explore the individual's animal perceptions of what they find reinforcing and punishing to enable the handler to understand the animal's responses to consequences. This process and research that has occurred exploring it has always remained on an individual basis. As practitioners, we should always make sure we treat each case and animal as an individual, tailoring methods to what their needs are. The risk with not completing this assessment is if a practitioner thinks something should be reinforcing and that it should increase the frequency of the behaviour, it may not if the animal does not find it rewarding. It could actually be acting as punishment and reducing the frequency of the behaviour. For example, if a trainer uses pats on a horse as a reward, but the horse perceives this as aversive and responds accordingly. This could affect the horse's CER with the specific stimuli or environment.

Overall, there are several ways animals can learn, as well as operant e.g. shaping, and classical conditioning, including habituation and sensitisation, through insight and social learning.

See above for other methods of animal learning and its application.

See Brief Examples in Section Below for DS and CC

If I choose during my BMP creation any DS and or CC is required, it is always when the animal's behaviour is the result of a fear or anxiety. When focusing on fear or anxiety, DS and CC is used to change the frequency and intensity of a response to a stimulus or event, as well as changing the animal's conditioned emotional response to the above.

Although in most cases highly beneficial during behaviour modification, there are limitations to using these techniques, including the following.

- It can be difficult to keep an individual animal's arousal thresholds low enough to achieve desensitisation. If arousal is too high, stress and anxiety can occur, inhibiting learning.
- There is an increased risk of making things worse during the DS and CC process.

This could occur if DS turns into sensitisation to the triggers.

- If there has been miss-diagnosis of the underlying reason for the behaviour, Ds and CC could make the behaviour worse, exacerbating the symptoms.
- DS and CC can take time to develop accurately. This could be a slow process for many pet owners which could lead to frustration on the owners part as well as the animal.
- DS and CC requires careful set-up of the environment, avoiding additional triggers and distractions. It is also important to be mindful of the problems caused by overshadowing and blocking during the DS and CC if this is not intentional.
- When using CC, the order in which the events occur is important for learning to take place and to avoid common pitfalls from poor execution and compounding stimuli. For example, reaching for a treat pouch before the animal has perceived the trigger.

For problem behaviours where fear and anxiety are not a primary driver, for example chasing livestock for fun, running up to dogs and people on walks etc, then using the principles of operant conditioning are generally going to be the best option for training more desirable behaviours.

Another method used in the process of animal training, particularly with dogs is the Premack Principle, established by David Premack in the mid -1960's. The premise of the Premack Principle is when the prospect participating in desirable activities could be used as a reinforcer for less desirable activities. Commonly referred to as Grandma's rule, we can use something the individual really wants to take part in to allow them to complete a more undesirable task e.g., eat your broccoli to get your ice cream. In this human example, the frequency of eating broccoli increases as it's reinforced by eating ice-cream. This of course assumes that broccoli is not aversive to the animal in the first place.

It is important to remember as a practitioner and when talking to owners, that using aversive stimuli can change behaviour e.g. the use of positive punishment, negative reinforcement and punishment. This has been proven in research, however, the larger concern is the impact it can have on animal welfare. The impact includes the following.

- The use of these techniques can erode and damage relationships between the human and the animal.
- Secondary side effects such as increased aggression.

The process and action of 'Habituation' occurs if the stimuli of focus is presented to the individual at a low intensity gradually over time. An example of this would be to have a horse become used to traffic, you can turn a horse out in a field next to a hedge. On the other side of the hedge there would be a road with traffic. Gradually over time the horse may initially react to certain sounds, but once no intense reaction occurs, the horse's response over time decreases till they do not respond to these specific stimuli. Depending on the intensity of the stimulus, you may get the opposite of habituation and sensitisation occurs instead and instead of learning to tune the trigger out, the animal instead becomes more aware of it, or more 'sensitive'.

If discussing learning from the perspective of awareness of the self and environmental stimuli, a Dr from EP12 undertook the following process to examine the concepts above.

- A mirror and a mark on the face was used to test self-awareness.
- Many animals failed to recognise themselves during test stages.

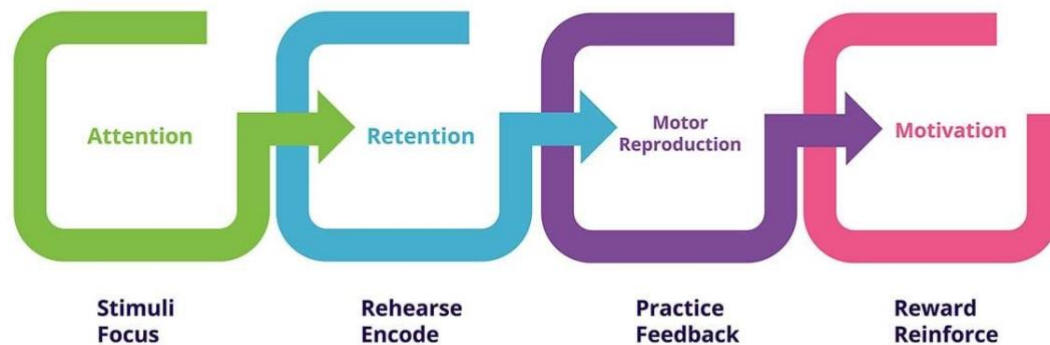
He has also established his own scale and tests to look at a dog's cognitive ability and the course also covered the concept of consciousness and self-awareness. Although these tests have provided practitioners with a greater understanding of these concepts, this may only be one level of self-awareness. Some practitioners who specialise in canine olfactory and pheromone based communication suggest that dogs recognise themselves through scent due to the size and strength of the canine olfactory bulb and system.

As well OC and CC approaches that are commonly undertaken within animal training, there has been another approach focusing on the incorporation of social learning. This training was titled the 'Do as I Do' training method. The method is based on incorporating the use of a dog's social and cognitive skills to observe and imitate the trainer and their action.

I have seen in cases with multiple dogs or when using a stooge dog, that a less confident dog will imitate or repeat the behaviours of a more confident, relaxed dog. I have witnessed this in scenarios where I am introducing a dog to new sounds, new activities, new environments e.g. storms, swimming, new people.

Some animal species are very good at imitation or similar behaviour presentations. Species including Humans and other primates have shown to be effective at imitation learning. When working with children, a large portion of them can watch a new activity being performed once and repeat it without any issues. In comparison, dogs, if being measured against one definition of imitation, could do much better observing other dogs than other animals, like humans. In human psychology, Social Learning Theory established by Albert Bandura in (1961-1977) emphasises the importance of observing, modelling, and imitating the behaviours, attitudes, and emotional reactions of others in the process of learning. Whether this is demonstrated in non-human species in similar steps has not been discussed however, it provides a good understanding when working with owners, how they may pick up training processes and BMPs provided.

Social Learning Theory



One example where we may question whether social learning is taking place in comparison to social facilitation or 'imitation', is when a cue has been given and more than one animal responds. Is this the target animal responding to the cue or the other dog. If their response was based on the animal's response to the stimuli, in future repetitions of this scenario, the dog may not respond if another dog isn't there. Hence why we should also work one on one with animals as well as introducing social learning if appropriate to allow individual absorption of knowledge.

Within the equine industry, there is great debate on whether horses demonstrate social learning and learning through observation. Most practitioners say horses do not have the cognitive capabilities to demonstrate this skill, while others, through anecdotal evidence believe it is possible. Either way, whether training for behaviour modification, the focus should also be to work with the individual first no matter who or what is around them. This can also help avoid any confusion between stimuli, cues, and environment distractions for both the animal and owner.

The listed courses and information above have been supplemented with my other courses and CPD, as well as practical experience.

Briefly provide specific examples of how this learning demonstrates your Knowledge & Understanding

INTRODUCTION

Over the last 10 years I have been practising, I started teaching training classes 1-2 hours a week and this developed to up to 8-10 hours a week, sometimes up to 20 depending on what classes are being run and numbers of clients. These classes comprise a variety of age groups, including puppies to adults, as well as rescue dogs. The content of my classes focus on a range of life skill training, scent work, trick training, husbandry tasks, and some hoopers. Within every class and 1-2-1 I run, I am always incorporating learning theories and my understanding of how different species learn in order to teach new behaviours and skills as well as support existing issues. This includes Settles, Loose Lead Walking, Recall,

Socialisation, Husbandry tasks, and in a 1-1 setting for training and helping with problem behaviours. These processes involve the application of classical and operant conditioning, specifically shaping, luring, capturing, and sometimes chaining. These processes also focused on and promoted LIMA principles and the Humane Hierarchy to meet the needs of the animals during training. These sessions sometimes also focus on stimulus discrimination, generalisation and proofing the behaviours based on the 3 D's (sometimes classed as 4 depending on the scenario) – Duration, Distance, Distractions (Difficulty).

In an equine training environment, training tasks involving learning theory may involve the following.

- Catching In/Tuning Out
- Tack or Equipment Familiarisation (Headcollars, riding tack, rugs)
- Picking up feet
- Being touched and groomed
- Husbandry Tasks including Injections, Worming, Teeth Check, Farrier foot check.
- Trick training
- Early riding training stages
- Groundwork
- Clippers
- Habituation to environmental triggers unless DS required, potentially CC also
- Trailer loading/Unloading
- Introduction to animals, yard equipment, sounds, weather etc.

I have used some of the exercises from the EP12 course to observe my dogs at my work and our family dog and their social learning ability. I implemented the yawn test and pointing as well as other Coren 'intelligence tests'. These tests were a lovely fun way to explore social learning, their abilities, and problem solving skills including empathy development, cue responsiveness and communication. I got my students who I teach canine instructing to undertake each test, record the results and we then discussed the results and factors that may have impacted these findings. As we have a variety of breeds in my work kennels, e.g. Cavapoos, Labradors, Cocker spaniels, Sprockers and Staffies, it led to some very interesting discussions and breaking of any previous bias and distortions surrounding breed dispositions and anecdotal characteristics.

EXAMPLE 1 – CANINE

7-year-old, female-neutered Romanian rescue dog (Similar size to a jack russel)
Friendly with people and dogs when outside but nervous around moving cars and traffic when not in the car.

This rescue dog, that has been with the owner for a year, was very dog-friendly, confident and enjoyed interacting with people and their dogs. Following this, in this specific case, I used a stooge dog that was very relaxed and neutral around traffic to begin joining the rescue dog out on walks. This also allowed for social support from the stooge dog as well as learning to occur, a different approach to counter conditioning using another dog as a social reward as this was identified as one of this dog's life rewards. We began walking the

dogs together in quiet places and secure fields to introduce the dogs and when they were comfortable, we allowed interaction. Once the dogs had become comfortable with one another, we then started to walk them together in more challenging environments, in and out of parks onto smaller less busy streets with few cars and by observing the stooge dog interacting with the world he started to show more confidence. We set the environment for success by sticking to regular walks once a day (20 minutes so as not to overwhelm) as we wanted the world to be as predictable as possible. As well as having to stooge dog there, as a car was coming, if the rescue dog presented any form of stress and is in situation where they may typically present with avoidance behaviour, we removed him from that environment briefly into another so as not to build the stress and avoidance response. If the dog presented with relaxed BL indicators, the behaviour was marked and rewarded, as well as the stooge dog being present. This allowed the dog to explore the initial trigger at their own place, have another dog not responding on the other side and was given the choice of locations. The end of each training session was rewarded with allowing the dogs to play and engage.

The result of this BMP case was increased confidence and less stress and anxiety towards traffic and similar environments. A secondary aspect of progression that was not initially the goal was how the dog began to engage with the owner more, building the relationship between the dog and owner. By the end of this case, the dog was able to walk along streets with cars without experience and stress or anxiety potentially developing a more intense fear response following negative exposure.

EXAMPLE 2 – EQUINE

12 year old Thoroughbred Gelding – Ex-Racer

The Gelding is reactive to movement outside his stable e.g. wheelbarrows and vehicles, as well as nervous around the sound of clippers (the current owner got him 6 months ago and think he may have previously been twitched on the ear to be clipped).

For this equine case, the initial sessions began online over teams before moving onto me physically visiting the yard to provide practical support and breakdown of the protocol process.

A plan was put in place using environmental management such as using a rope on the front of the stable to allow the use to investigate moving objects with choice to lessen stress due to restriction that the hoose was experiencing. The principles of operant and classical conditioning were included through additional training games and activities to provide additional mental enrichment. Throughout this whole plan, the horse was given options of choice in how they wanted to approach and respond to a situation.

In this plan, I implemented DS and CC protocols in a fairly open yard environment to allow movement if required where we were going to focus on the clipper noise. This location was somewhere on the yard that the horse had not been clipped in before and the purpose of this was to achieve a neutral starting point. The main aim of the DS and CC process was to lessen the frequency and intensity of the response to the clippers using distance and change

the conditioned emotional response (CER) the horse had learnt and developed in order to lessen the horse's experience of fear and anxiety. If we needed it during the clipper DS and CC process, the vet was on call in case sedation was required for the health and safety of all involved. This would also support the behaviour change plan and process for both the horse and owner.

To desensitise the horse to the sounds of the clippers we used gradual steps building up to the end of the process resulting in being able to have the clippers next to the horse and beginning the clipping process. The DS process and counter conditioning occurs in parallel with one another to decrease frequency and intensity of the response, and change the CER response from negative to a positive emotional response when presented with the stimulus in the future. The Desensitisation and Counter Conditioning process to the sound of the clipper involved the following steps (this process occurred over a period of 1 month and a ½, so not all in the one session);

- Start with a toothbrush for the sounds before moving straight on to the clippers themselves. Figure out at what distance the horse begins to react to the noise without placing the horse in a stressful environment. Once identified, start working with noise at this distance and gradually take steps closer to the horse if the horse remains relaxed).
- Every time the toothbrush is turned on, the horse receives a treat (starting distance, gradually move closer, 1 step at a time)
- Every time the clippers are presented, the horse receives a treat. (starting distance, gradually move closer, 1 step at a time)
- Every time the clippers are turned on, the horse receives a treat (starting distance, gradually move closer, 1 step at a time)
- Once standing next to the horse with the clippers, gradually move the clippers close to the skin, mark and reward, and then move away. Gradually repeat moving closer and closer until on the coat and moving one stroke at a time while marker and rewarding each step.
- The treats used were small cubes of carrot for this horse.
- This process was repeated gradually 5-10x times each session, based on the horse's response. If at any point, the horse is presented with any signs of stress, anxiety, or fear, we went a step back in the process and built the stages up again while the horse remained relaxed.

The result of this case included the horse become more positively inquisitive about objects moving past the stable, less stressful in the stable due to addition of enrichment and positive stable experiences, as well as the owner being able to clip the horse with large clippers at certain times of the year. However, I recommended to the owner that to keep a positive relationship and conditioned response to the clippers, the owner will randomly throughout the year e.g. every couple of weeks, get out and turn on clippers with rewards provided for relaxed behaviour (start at about 1 metre away and then closer, mainly to maintain health and safety).

Throughout this process, the owner and myself when near the horse always have riding hats and gloves, marking sure based on risk assessments that all handlers involved around

the horse had the correct PPE on as well as making sure the horse's headcollar was always secure before starting.

How did this Knowledge & Understanding change or improve your practice? Please ensure you provide examples/detail to support your answers.

Throughout the development of my practice with clients, I always aim to incorporate new learning for myself and my clients every day to demonstrate the benefits of exploring new learning techniques and using an evidence based approach in how animals learn and absorb new information. This can include sharing recent research updates in more lamens terms with owners during session discussion that relate to their specific case as well as providing updates to owners regarding legislative changes that may impact them and their pets.

During my practice, I have previously learnt towards the use of Operant and Classical Conditioning as a large aspect of my interaction and work with clients and their animals. Although very important as frameworks for training and behaviour support, I am much more educated and aware of how to take the animals emotional well-being and their needs into account during processes in conjunction with the above. The main takeaway of this learning was to always reflect on any bias that may lie within my practice, and use CPD opportunities to adjust or alter my practice in order to remain that open-minded critique and evidence based practitioner.

One area I have greatly developed in my own practice based on the above K&U is how to provide more opportunities for the animals to have choice over their training and behaviour support. This can involve adding more activities and techniques that provide choices for the animals to make as well as larger amounts of control on the part of the learner, allowing them to decide on the pace of the activity. This can add more cooperative care activities into classes and BMP's.

APEL Reflective Accounts Form (for CAB roles)

Please use this form to record written reflective accounts on all learning and training that you are submitting for APEL and how it relates to the Knowledge & Understanding (e.g. Animal Health and Welfare) sections of the standards. This is set out in the APEL Guidelines, as evidence types A, B, C, and D.

Please be aware that specific examples - and detail - in response to the questions below will allow you to demonstrate your knowledge and understanding much more clearly for Assessors than generic statements.

Use one form for each Knowledge & Understanding section, making sure you do not include any information that might identify a specific client, service user, colleague or other individuals.

Name: Candidate A

Knowledge section/ Knowledge & Understanding number(s): Section 4 The Interaction between Health and Behaviour Elements 13-20

What was the nature of the learning?

1. **Education Provider 1 (EP1) Level 5** - This is an ABTC recognised distance learning course, tutor supported.
2. **Education Provider 2 (EP2) Level 5** - This is an independent behaviourist course and qualification, incorporating distance learning and tutor support through email when required as well as webinars to support learning.
3. **Education Provider 3 (EP3) Course** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
4. **Education Provider 4 (EP4) Course** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
5. **Professional qualifications, accreditations, CPD and experience-** I have been studying since 2014 and have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically.
6. **Education Provider 5 (EP5) FdSc Applied Equine Behaviour** - This was a 2 year full time degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
7. **Education Provider 6 (EP6) BSc (Hons) Equine Science** - This was a 1 year full time top-up degree course in person involving a mix of assignment types such as

reports, presentations, posters, modification plans, and essays.

8. **Education Provider 7 (EP7) MSc Equine Behaviour, Performance and Training**
– This was a 2 year part time degree course (due to completing me level 5 DET at the same time) in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
9. **Education Provider 13 (EP13) Veterinary Nursing Assistant Level 3** – This course is an online distance learning course broken down into 17 modules, each requiring the completion of a set of questions, in either a short answer form, as a letter, or leaflet.
10. **Topic Related Background Reading** - I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples.
11. **Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar)** - I have been studying since 2014 and have attended a significant number of courses and webinars along with reading and personal experience that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Morag Heirs webinar on 'Reading and Understanding Scientific Papers'.
12. **Canine First Aid Course**
This course was a 1 day in person theory and practical based Canine focused First Aid Course run by Dog-First-Aid Cheshire. This course involved a lecture style session as well as practical CPR.

Why did you choose to undertake this learning?

EP1 Level 5

I started this course to have a UK based Degree level Canine qualification that was recognised by the ABTC and would support my original aim of becoming an CAB. The course covers specific topics such as law and animal welfare, and clinical procedures used within the canine industry. I was already very familiar with these approaches from working with and studying horses in a training and behaviour role as well as working in canine training and behaviour roles and environments throughout my career.

I undertook this course because it provided me with the opportunity to undertake self-study alongside given course resources through distance learning while working full time. For each module and question, I completed a large amount of background and wider research. Although the qualification was aimed at level 5, I feel based on my prior level 7 qualification and experience, I was able to go above and beyond in my research for each module. This includes extensive wider reading and referencing and consideration of its practical application to a variety of case examples and scenarios. The learning undertaken throughout this course encouraged and taught me further how to apply and continue developing my critical thinking skills and to be aware of my biases, if I had any prior to this

course, across different topics. For each module I researched and considered the quality of the studies selected, whether they had been peer reviewed, repeated, etc. and how they contributed to the points I was aiming to develop.

EP2 Level 5

This was a 5 module based distance learning course, and my aim was to get a better understanding of dogs and their needs. As I already had equine qualifications, I wanted to gain a canine behaviour based qualification which included a set of 4 modules and the final assignment being a full practical behaviour case with a 5000 word write up report. I was already aware and understood the importance of understanding the components of behaviour modification protocols, report and plan design, therefore this contributed to my current knowledge in the area and further developed my skills as an individual working in behaviour.

EP3 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of cats and dogs (dogs in particular) and their physical and psychological needs. This course provided me with focused discussions and assessments on animal care across a variety of species as well as continuing developing my canine knowledge in particular.

EP4 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of Animal Welfare in a variety of animals including pets and farm animals. This course provided me with focused discussions and assessments on welfare across a variety of species as well as continuing developing my canine knowledge in particular when discussing welfare assessments.

Professional qualifications, accreditations, CPD and experience

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. I have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically. When I was selecting CPD opportunities, I chose practical CPD and examinations with the goal to either supplement and broaden my knowledge of a certain area where I feel it may be weaker, or to support and go deeper with what I have already learnt or is relevant to my practice. There are a number of reasons for this which include; personal growth, this being my hobby, a requirement for a former role to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

My experiences as a degree lecturer and MSc student involved many scenarios where critical thinking and evidence gathering was a requirement of the role and running my own business where everyday I read new information, look at its sources, validity, and areas for development in order to support my practice.

EP5 FdSc Applied Equine Behaviour

This course was a 2 year full time in person foundation degree. This course involved many modules, some animal general such as anatomy and physiology, and more equine specific modules such as introduction to equine behaviour and applied equine behaviour. I chose this course because I have always had a love and passionate interest in animal behaviour, equine specific following early years of equine behavioural rehabilitation and rescue

support. I had the goal of wanting to understand the theory behind the process of learning, training, behaviour, welfare, and neurobiological principles specifically.

EP6 BSc (Hons) Equine Science

This course was 1 year top up degree in Equine Science, covering a range of topics including, equine fitness and performance, riding coaching and performance, equine welfare and ethics and advances in complementary therapies. At the time, I was wanting to complete a top-up in applied equine behaviour directly, however that course did not run so I completed this top up instead which provided me with a range of theory knowledge and skills that I may not have developed otherwise. This supported me when deciding to apply onto my Masters programme. This course involved a dissertation with a research proposal, reports, critical reviews, debates, abstract writing, presentations and posters.

EP7 MSc Equine Behaviour, Performance and Training

This masters degree course was a 2 year part time course due to me undertaking my level 5 DET qualification at the same time. This course involved a masters thesis creation, applied animal behaviour science modules as well as specific equine training and performance modules, and research methods sessions. The degree was assessed through large scale reports, pilot studies, essays, small studies and presentations. I chose to undertake this degree as it was one of the sole UK based masters degrees with a focus on equine behaviour specifically at the time, supporting my goal of becoming a CAB from the equine perspective as well as canine.

Topic Related Background Reading

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar)

I have been studying since 2014 and have attended a significant number of courses and webinars that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP13 Veterinary Nursing Assistant Level 3

This course is an online distance learning course broken down into 17 modules, each requiring the completion of a set of questions, in either a short answer form, as a letter, or leaflet. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB. I chose this course which I started during Covid as another test and development of my veterinary anatomy and physiology information and understanding.

Canine First Aid Course

This course was a 1 day in person theory and practical based Canine focused First Aid Course. This course involved a lecture style session as well as practical CPR. I chose to undertake this course to formalise my first aid knowledge and continue to develop my practical first aid skills, which is particularly beneficial when working with clients and their dogs in case and incidents arise as well as for me as a private member of the public.

How is your learning relevant to the Knowledge & Understanding?

The courses discussed above cover all the elements of The Interaction between Health and Behaviour standards K13 to K20. This evidence is also supported by my CPD examples which I believe provides the knowledge requirements asked for by the ABTC to be recognised as a CAB. Throughout my reflective statements below, I have provided some case examples to demonstrate the evolution of my knowledge, understanding and critical thinking skills. Where appropriate I have discussed and checked these cases with other qualified industry professionals e.g. other CAB's.

K13 - The functional anatomy and physiology of the vertebrate nervous and endocrine systems and their role in mediating behaviour.

In my FdSc course, I was required to complete two modules relating to anatomy and physiology. The first being in my first year – Equine Anatomy and Physiology, and the second in my second year called 'Control and Perception', otherwise referred to as Neurobiology and Endocrinology. In the first year module, I covered all the body systems, then in my second year focusing on the nervous and endocrine systems when focusing more directly on behaviour.

I also covered the same topics in the EP1 self led course as well as supporting my knowledge and understanding with background reading throughout all courses. The EP1 course is a self-led, tutor supported learning and so the research I covered was as well as what was required to pass the modules alone.

The EP1 Course covered the following topics:

- The differences between the divisions of the nervous system
- The different neural pathways between voluntary and involuntary behaviour
- The structure of the nervous system
- Overview of the brain and the functions of the various parts
- Neurotransmitters and how they affect canine behaviour
- The physiological and behavioural effects of stress, and the hormones involved
- Other biological factors, for example how hormones or nutrition can influence behaviour
- Homeostasis and the normal physiology of the body
- How health and physiology can affect canine behaviour

The modules covered across all courses developing understanding in the following areas;

- Understanding how the nervous system functions and terminology associated with it.
- The nervous system is described as *'the organised network of nerve tissues in the*

body. It includes the central nervous system (the brain and spinal cord), the peripheral nervous system (nerves that extend from the spinal cord to the rest of the body), and other nerve tissue'.

- The Central Nervous System (Brain, Spinal Cord)
- The Peripheral Nervous System - divided into Somatic Nervous System, that responds to external stimuli, such as touching something hot and the Autonomic nervous system, the ANS operates without conscious recognition or effort from the animal and comprises of the Sympathetic and Parasympathetic nervous systems.
- The sympathetic nervous system maintains homeostasis and prepares the body for a stress response, 'fight or flight' which is important to us working with animals, particularly in the development of stress.
- These systems function parallel to each other and maintain homeostasis within the body's internal environment, responding to stimuli, such as perceived danger and then returning to normal once the threat has passed.
- Both the nervous and endocrine systems are highly complex and are interlinked.
- Examples of how the systems functions influence external behavioural changes include growling and piloerection.
- The endocrine system comprises *'the glands and organs that create and release hormones directly into the blood so that they can travel to tissues and organs all over the body'*.
- Hormones control multiple important functions in the body. These include growth and development, metabolism, reproduction.
- Structures that make up the endocrine system include the hypothalamus, pineal gland, pituitary gland, thyroid gland, parathyroid glands, thymus, adrenal glands, and pancreas. This system also includes the testes in males and the ovaries and placenta (during pregnancy) in females.

Modules covered in my FdSc programme, including Control and Perception and Animal Cognition taught me how the nervous and endocrine system function, particularly when discussing the role of neurotransmitters such as Dopamine, Serotonin, Gamma-Aminobutyric Acid (GABA) and more. Throughout all the above courses, particularly starting in the Animal Cognition module at level 5, we discussed the the role of the hypothalamus in the stress response and hormone release as well as how the amygdala functions in relation to fear conditioning and emotional response to a variety of stimuli and scenarios.

It is also important to understand and discuss what occurs if there is dysregulation or damage to the nervous and endocrine system and how this impacts behaviour and health. Examples of these issues could include; a decrease in level of vasopressin could cause diabetes insipidus, which can result in excess urination or Cushing's disease. In a canine example, this could be externally present in symptoms such as increase in frequency of drinking water, excessive urination, weight gain, coat change or loss (especially on the flank).

As with other standards, my ongoing CPD and practical experience has consistently supplemented my formal learning experiences. I have consulted with other provisional CAB's and my course lecturers regarding the role of neurotransmitters within canine and

equine behaviour. I aim to begin working more closely with vets and discuss cases with them, this may include discussion around medication based on balancing neurotransmitter levels and the impact of this on behaviour.

K14 - The concept of neural plasticity and the relevance and influence of environmental and genetic factors in the development of the nervous system.

The concept of Neural plasticity was covered across both the EP2, EP5 and EP6 course and was part of the studies in the EP1 (canine).

'Neural plasticity' can be defined as the process in which the brain forms and reorganises connections, especially in response to learning or experience. The more an action is rehearsed and repeated the easier it makes the behaviour which can be both positive for behaviours we want the animal to learn but also negative for making associations following aversive experiences. This is important to recognise and consider when designing support protocols as well as analysing the aetiology of the behaviours observed. The brain creates behaviour, but behaviour and experience also change the brain as mentioned above which can lead to the process of habit formation, both in dogs and owners. It is then our job to break or re-make those habits and teach new ones with different conditioned emotional responses.

When examining behaviour, we must acknowledge that as humans and when working with animals, everything experienced and that we or they do, alters the brain to some degree, either structurally, chemically and functionally, or even all three. Functional changes are not always important in behaviour cases, however in certain cases it would be used to explain differences in the way the body responds to certain actions, similar to that of Split Brain syndrome in humans.

The development of the nervous system in vertebrate animals is and has been influenced through factors before and after including genetics and environmental changes. My studies have shown me that genetics in all species can influence neurobiological development including potential brain size and structure. Genetics research has also shown that genes can express differently depending on environmental exposure to a variety of stimuli. Therefore, examining phenotype and its influencing factors can be a large part in examining behaviour presented, particularly over a long period of time.

In previous years, anecdotal evidence and breeder experience has discussed how the experiences of bitch during pregnancy can influence their offspring and their future health behaviour, similar to that in humans. For example experiencing stress during pregnancy could cause their offspring to have a lower stress and arousal threshold when exposed to new stimuli in later life. Research has supported this concept including Serpells work. For example, Serpell discusses this concept in his book as well as studies such as Braastad *et al.* (1998) highlights the influence of prenatal stress on the behaviour of laboratory, farm and domestic mammals.

Therefore, it is highly important that breeders are educated on care, behaviour and management strategies for the bitch during pregnancy and the puppies early life experiences while in their care.

K15 - The signs of ill-health and common conditions influencing behaviour and associated veterinary terminology.

Several of the above studies examined this topic as part of my studies over the years including EP1, EP5, EP6, EP7, EP2, EP13 and Webinars.

As well as the above courses, I have read and referenced the following books in the topic area to develop my knowledge in anatomy, physiology and disorders that can occur within each system.

- Aspinall, V., & Cappello, M. (2019). *Introduction to animal and veterinary anatomy and physiology*. CABI.
- Cooper, B., Mullineaux, E., Turner, L., & Greet, T. (2011). *BSAVA textbook of veterinary nursing* (No. Ed. 5). British Small Animal Veterinary Association.
- Overall, K. (2013). *Manual of Clinical Behavioral Medicine for Dogs and Cats-E-Book*. Elsevier Health Sciences.
- Bowen, J., & Heath, S. (2005). *Behaviour problems in small animals: practical advice for the veterinary team*. Elsevier Health Sciences.
- Landsberg, G., Hunthausen, W., & Ackerman, L. (2011). *Behavior problems of the dog and cat*. Elsevier Health Sciences.
- Horwitz, D. F. (Ed.). (2018). *Blackwell's five-minute veterinary consult clinical companion: canine and feline behavior*. John Wiley & Sons.
- Hedges, S. (2021). *Practical canine behaviour: for veterinary nurses and technicians*. CABI.

An example of the content covered in one of courses include - The Compass course included sections on the following topic areas.

- Homeostasis and the normal physiology of the body
- How health and physiology can affect canine behaviour
- Various medical conditions are covered, and their behavioural effects

Other common physical conditions that may influence behaviour include:

- Orthopaedic pain
- Soft tissue injury
- Epilepsy
- A wide variety of diseases
- Allergies

As well as the above courses, I have also completed a Canine First Aid course. From this course I continued developing my knowledge on the following;

- How to assess signs of ill health such as changes in behaviour (aggression, avoidance, depressed, lethargic)
- Observation of mucus membranes
- Capillary refill time
- Changes in coat/skin condition
- Weight etc.

All the above could be signs of potential ill health.

Gastro-intestinal issues can also be a common problem and may be caused by blockages, irritation, inflammation, colic, or ulceration etc. In dogs, this may manifest as dogs licking surfaces. Excessive Licking of Surfaces (ELS) refers to licking of objects and surfaces in excessive duration, frequency, or intensity as compared with that required for exploration – (Becuwe-Bonnet *et al.*, 2012). In horses, Gastric and Colonic Ulcers and Colic are common medical conditions that cause behaviour changes as a reaction and sometimes learnt behaviour following pain development.

In recent years, a variety of veterinary and species specific researchers have investigated and created Pain scales or behaviour based pain assessments to monitor pain and health. These include the following.

- Glasgow Composite Measure Pain Scale (investigates several parameters including demeanour, response to people, posture, mobility etc.)
- Horse Grimace Scale – (Dalla Costa *et al.*, 2016)
- WSAVA GUIDELINES FOR RECOGNITION, ASSESSMENT AND TREATMENT OF PAIN. - [2022 WSAVA guidelines for the recognition, assessment and treatment of pain \(wiley.com\)](#)

K16 - The interaction between health and behaviour in vertebrate animals.

See K15

I have learnt throughout my academic and professional journey that health and behaviour problems play an important role in veterinary behaviour medicine. Physical problems, such as pain (Barcelos et al., 2015) or gastrointestinal problems (Bécuwe-Bonnet et al., 2012) have been shown to be linked to behaviour problems.

Other studies have highlighted findings to support the benefits of veterinarians and behaviourists examining the impact of discomfort or pain on behavioural diagnosis. These studies include the following.

- MB Dube et al. (2017) stated in their review studying 3,646 people, that health problems should be considered when diagnosing behaviour problems in dogs.
- Mills et al. (2020) stated in their research that it is better for veterinarians to treat suspected pain first rather than consider its significance only when the animal does not respond to behaviour therapy”.
- Fagundes et al. (2018) concluded that veterinarians and behaviourists should carefully assess dogs with noise sensitivities for pain-related problems.

From my studies, it is clear that health and behaviour are closely intertwined, however this is easier to demonstrate in a practical setting and scenario e.g. experiencing pain and the impact on emotional status. I know from my own experience when I am feeling unwell, I am less likely to want to be out in large spaces or at social events. This is different to how my behaviour would normally be when feeling well. Feeling ill can also affect my sleep patterns and threshold for becoming aroused, stressed and irritable. Being ill can lower my thresholds for feeling ill or recovering from injury. I also will complete actions to avoid feeling anymore

pain or discomfort. Therefore, this is similar to working dogs and horses when they are in pain or discomfort.

K17 - The behavioural consequences of medical disorders.

See K15 and 16

It is clear from my studies, that there are a wide variety of behavioural consequences associated with medical disorders, so carefully observing the animal and carefully interviewing owners is important to gain all information required that could highlight any underlying issues that require veterinary intervention and support before any behavioural support should be implemented. If at any point there are any medical conditions or pain influencing behaviour, these need to be managed as the first priority.

Following this learning, it has led me to think about the larger consequences to the wider animal-owner population and industry when animals display behaviours associated with diagnosed and particularly undiagnosed medical conditions. This could include an increase in animals being euthanized because of behavioural changes and issues that could have been caused by medical/health conditions. Due to this impact, further research and practical work into early diagnosis, management of behaviour and owner education is highly important for reducing this impact and other consequences to behaviour.

K18 - The evidence for and against a medical component contributing to competing explanations of a behaviour.

See above K15, 16 and 17

The purpose of collection and recording evidence and history in behaviour consultations includes the following;

- To aid in ruling in or out a medical component as a factor causing or influencing the behaviours presented.

The process of ruling out can include conducting behavioural observations as well as diagnostic testing in the form of blood tests, pain trials at the vets.

A 'pain trial' is a 7 to 10 day period during which the dogs I put on a given pain medication and the owners are asked to keep a record and observe physical or behavioural changes during this time. This information can inform a veterinary if the medication is effective as well as if it is targeting the right area or not. If the medication makes no changes during this, this may be a sign that would mean the vet tests another form of pain medication.

Through my study, I have been taught about a variety of pain assessments that can be used within the process of behaviour analysis and modification (please see K15). I decided to expand my knowledge of pain assessments to investigate if there were any other forms that I was not aware of out of working dogs and horses. One day during my googling, I came across the 'Socrates Mnemonic'. It is more based in the human medical area, however researchers have translated it into a canine setting. This assessment focuses on pain assessment linked to aggressive responses into 8 areas; Site, Onset, Character, Radiates, Associative Symptoms, Time/Duration, Exacerbating, Severity (please see the diagram below).

Pain Assessment

Mnemonic :- SOCRATES

S - Site

O - Onset

C - Character

R - Radiates

A - Associated Symt

T - Time/duration

E - Exacerbating

S - Severity



Clinician's Brief breakdown the Socrates Mnemonic for Pain Assessment into a Canine Aggression Model for practitioners. This is seen below.

Site

Where does aggression occur (eg, on the bed, on the couch, in the kitchen, in the backyard)?

Who or what is aggression directed toward?

Onset

When did aggression begin?

Was the onset sudden or gradual?

Were early warning signs (eg, fear) observed in certain situations?

Did a traumatic event precede the onset of aggression?

Character

How does aggression manifest (eg, barking, snarling, growling, lunging, snapping, nipping, biting)?

What type of injuries (if any) have been sustained?

How does the dog appear during the aggression episode? Body position and posture of the ears, eyes, mouth, and tail can help determine whether aggression is offensive or defensive in nature.

Does the dog bite once and then retreat, or does it continue to bite and hold until removed from the target?

Does the dog separate itself or is owner intervention necessary?

If owners must intervene, what type of injuries have been sustained (if any)?

Radiation

Does aggression extend to other circumstances?

Does aggression continue after the trigger or stimulus has been removed?

Does the dog redirect its behaviour to a human or another dog when aggressively aroused?

Associations

Is aggression associated with any events (eg, a food bowl is present, another dog approaches the owner, visitors are present)?

Time course/pattern

Does aggression follow a pattern (eg, only at night, after a prolonged absence of the owner, when visitors are present)?

Exacerbating or relieving factors

What measures have been taken to mitigate aggression?

Have other training methods been previously used?

Have any medications, supplements, nutraceuticals, pheromones, or over-the-counter products been used?

Which interventions have helped or exacerbated aggression?

Severity

According to the owner, how severe is the dog's aggression on a scale of 1 to 10? (This scale can help gauge the severity of aggression and determine the likelihood the owner will euthanize or rehome the dog. Bite severity can also be classified using an available bite scale.

This information provides another angle for analysing aggression relating behaviours and provides a framework for question design and assessment during consultations.

Behavioural researchers and practitioners have highlighted some key concepts to be aware of during differential diagnosis and discussions relating to the consequences of medical conditions on animal behaviour. I refer to these throughout my practice to make sure I am using the most accurate process for referrals and cases I work with.

These include the follow;

Always rule out any medical disorder or condition that may be contributing to aggression where possible as even when a patient is experiencing over arousal or increased stress, this could lead to additional behavioural disorders when there may not be any clinical medical evidence present to support a diagnosis.

A physical examination from a vet is always required before starting any form of behavioural modification to rule out medical disorders or pain as a cause of behaviour. The following tests should be undertaken during the veterinary examination.

- Physical Examination (Orthopaedic and Neurologic)
- CBC
- Serum Chemistry Profile
- Urinalysis

Once the above have been completed, these should then be followed up with additional testing, to include any imaging required (X-ray, CT scan, MR, Ultrasound) and Endocrine Testing (Hormone levels and balance).

If after this testing process there is no medical component identified or diagnosed, clinical disorders can be ruled out and a behaviour modification programme be created and implemented.

K19 - Psychopharmacology and the mode of action of the major classes of drugs used in clinical animal behaviour, their role and correct application, and constraints and contra-indicators to their use.


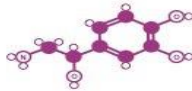

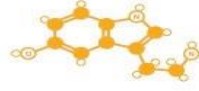




Across the courses above, a high standard of knowledge of both animal learning and its practical application was demonstrated, and covered not only training, but also how to identify and resolve behaviour problems. This also included undertaking differential diagnosis including the consideration of pain and disease as conditions affecting behaviour

presentation.

The EP1, EP2, webinars and additional background reading added to my knowledge and application of psychopharmacology in different species. I completed additional study and will continue to as this topic is too important to get incorrect in behavioural cases. EP1 specifically contained a dedicated module on pharmacology. This module focused on the following topics.

The classes and types of veterinary drugs

- Different ways that drugs act on the body
- The ways that drugs can impact upon canine behaviour
- Some common medical disorders and the ways that these can influence the behaviour of a dog
- Neurotransmitter balance

ADRENALINE	NORADRENALINE	DOPAMINE	SEROTONIN
			
Fight or flight neurotransmitter	Concentration neurotransmitter	Pleasure neurotransmitter	Mood neurotransmitter
GABA	ACETYLCHOLINE	GLUTAMATE	ENDORPHINS
			
Calming neurotransmitter	Learning neurotransmitter	Memory neurotransmitter	Euphoria neurotransmitter

I also undertook specific background reading as mentioned above which included focus on the different types of psychopharmacological intervention as well as the difference between short and long action drugs and how they can be used in different cases with different goals for the animals in them. This reading also included focus on the following points.

Psychotropic Medications

- Acute versus longer term drugs
- Modes of action of TCA and SSRI classes Most commonly used meds

When examining and researching psychopharmacological interventions, I have focused on my exploration on the following;

The most common groups of medications used to support both the psychological and physiological symptoms of generalised separation anxiety include.

- Selective serotonin reuptake inhibitors (SSRIs) e.g., Fluoxetine
- Serotonin and noradrenaline reuptake inhibitors (SNRIs)
- Monoamine oxidase inhibitors (MAOIs)
- Pregabalin
- Benzodiazepines
- Tricyclic antidepressants (TCAs) e.g., Clomipramine
- Antihistamines
- Beta-blockers

(PetMD, 2022; ASPCA, 2022; Overall, 2013 pp.704-714)

Below is my understanding and knowledge on differences between short and long acting drugs with some examples.

Drug types most commonly used to treat behaviour problems in dogs

Short-acting medication:

- Rapid onset of effect
- Effect lasts several hours then wears off
- Can be used as needed for predictable/infrequent scary events e.g. fireworks, thunderstorms, vet visits, grooming, travel
- E.g. benzodiazepines, dexmedetomidine (Sileo), trazodone, gabapentin

Long-acting medication:

Slow onset of effect (may be 4-6 weeks +)

Given daily

Used where exposure to triggers is constant/frequent/unpredictable or where animal is generally anxious

E.g. TCAs, SSRIs, MAOIs.

The main differences between short and long acting psychoactive drugs are as follows.

Short-term effect: increase amount of specific neurotransmitter in synapses, which increases availability to bind to receptors

Long-term effects: increasing adaptive neuroplasticity – the ability to form new neural connections, or strengthen/weaken existing connections between neurons via:

- Changes in neurotransmitter receptor sensitivity
- Long term potentiation: long lasting increase in strength of firing of post-synaptic neurons in response to synaptic stimulation = strengthening of specific neural pathways
- Long term depression: reduced response of post-synaptic neurons = weakening of specific neural pathways
- Increased neurogenesis (formation of new neurons)

My research and study has aimed to examine the different drug types, mode of action and function, limitations, and potential side effects of the medication. It is always important to emphasise that any form of psychopharmacological support is always given in conjunction with a behaviour modification programme. My ongoing study has also examined medication dosages and contra-indications when taking medications. An example of a medical contraindication could include Serotonin Syndrome. This syndrome occurs when the body has too much serotonin, typically due to particular medications/supplements when used in conjunction with each other which may have caused a number of side effects, including an imbalance of neurotransmitters.

During intervention with psychoactive drugs, I must be aware as a practitioner of the risk of an animal developing certain side effects of medication use, and withdrawal. Hypertensive Crisis, Serotonin Syndrome and Discontinuation Syndrome are examples of these side effects. Using Serotonin Syndrome as an example, here are a few points in relation to its

development and impact on dogs.

- Serotonin Syndrome (SS) can develop if using psychoactive drugs that cause an increase in serotonin in conjunction with other supplements.
- Clinical signs (SS) may vary, depending on the particular drug and quantity of it that the dog has consumed.
- Clinical signs include Gastrointestinal issues (GIT issues) such as diarrhoea, vomiting, and decreased appetite. These issues in the GIT are primarily due to the majority of serotonin being based in the small intestine.

Other signs a practitioner may see can include.

- Elevated heart rate
- Muscle tremors
- Muscle rigidity
- Restlessness
- Panting
- Pacing with an agitated appearance.
- Disorientation or confusion – changes to mental state.
- Severe cases may present with seizures.

If I am concerned that an animal may be demonstrated Ser S, I suggest the owner take the animal straight to the vet and a review of current drugs taken completed.

Reviewing a dog's full medical history and current medication list is of high importance for the Vet and CAB to understand how this could also play a role in behaviour presentation and ongoing support.

FLUOXETINE

Focusing on one medication commonly used by veterinarians, Fluoxetine is a Selective Serotonin Reuptake Inhibitor (SSRI) which works by delaying the reabsorption of serotonin (a neurotransmitter) into the presynaptic nerve endings following its release by blocking the reuptake mechanism. This reuptake process allows for serotonin to persist in the synaptic cleft for a longer amount of time, thus enhancing its effects on the individual.

When learning about different psychopharmacological drugs, part of my education has been dedicated to understanding their history and how they have been developed, including legislative constraints. If using Fluoxetine (F) for example for a canine case, I explored its history when it started being used. I found out the following information.

- F was not originally licenced for use with dogs
- In 2007, the FDA approved Reconcile (fluoxetine made by Elanco) for use in dogs for separation anxiety in conjunction with behavioural modification (Kaur *et al.*, 2016).
- If an owner or another practitioner wanted to examine the background to a specific drug and when they were licensed for use in a specific species, they can visit the Veterinary Medicines Directorate Service - <https://www.gov.uk/government/organisations/veterinary-medicines-directorate>.
- An example of drug specific information to be aware of as CAB and industry professional includes what different drugs can be used for e.g. Fluoxetine

(Reconcile) is approved for use in dogs with separation anxiety, but can be used “off-label” under the direction of a vet for other behavioural conditions, such as non-specific anxiety. PLEASE SEE PRESCRIBING CASCADE.

Another area of knowledge that professionals should be cognizant of is what neurotransmitters' different medication targets and their individual function with different behavioural disorders. For example,

- Serotonin has many functions including affecting mood, cognitive function, impulsivity and social behaviours.
- Found that up to 90% of the body's serotonin is produced in the gut.
- Can act as both an Antagonist and Agonist and may possibly stimulate neurogenesis (the growth and development of nervous tissue) (Agonist - drug that binds to and activates a receptor, Antagonist - drug that binds to but does not activate (blocks) a receptor)
- An increase in Serotonin can take several weeks to show any beneficial signs.
- In some cases, changes may not easily be observable and with my work with animals has always been psychopharma to be used in conjunction with behaviour modification.
- The main effects of serotonin targeted psychopharmacology are to allow the dog to ‘feel better’ and reduce aggression, anxiety and impulsivity.

Research Specific Example

Chutter, M., Perry, P., & Houpt, K. (2019). Efficacy of fluoxetine for canine behavioral disorders. *Journal of Veterinary Behavior*, 33, 54-58.

- The findings of this study demonstrated positive effects of Fluoxetine use on a reduction in canine behavioural disorder presentation. Although this finding is beneficial, an aspect that requires further exploration is whether the results occurred because of the Fluoxetine addition, or whether it was the BMP that impacted the behaviours. This study could not completely rule out the possibility that the improvements seen may have been solely because of the b-mod.
- Although this is a good discussion to continue having, a dog should never have psychopharmacological intervention on its own, therefore, it would not be ethical to study the separation of approaches. The only way to analyse this concept would be to have two groups of dogs, one with a BMP and Fluoxetine and one with only a BMP.
- Overall, the findings were still positive in terms of how these approaches improved the dogs welfare during these studies, which should be a key focus of this research.

As Fluoxetine is a long-acting SSRI medication, let's focus on a short-acting psychopharmacological drug such as Benzodiazepines. Throughout my study on the EP1, EP2, EP7 and other background reading with practical experience I have learnt a great deal about different psychoactive medication. See below a fact sheet on this class of psychopharmacological drugs.

Action: binds to GABA_A receptors, reduce anxiety and panic

Uses: short-term treatment of fears and phobia in dogs

- Reduce fearfulness/anxiety/panic
- Interfere with memory formation/amnesic
- Muscle relaxant; sedative effect

Most commonly used:

- **Alprazolam** (Xanax)
 - Onset: 30-45 mins, lasts around 4 hours
- **Diazepam** (Valium):
 - Onset: 45-60 mins, lasts up to 6 hours

Potential side effects:

- Ataxia/drunkenness; paradoxical excitement (response to medication)
- Behavioural disinhibition: may include aggression
- Increased appetite; nausea
- Liver damage
- Must always give test dose before using benzodiazepines for the first time during a scary event
- Effective dosing must be determined by trial and error
- Physiological dependency: withdraw gradually after >2 weeks of regular use
- Common drugs of abuse in humans: CARE.

Benzos are not licensed for use in behavioural disorders in dogs.

Another aspect of working with psychopharmacological interventions is contraindications that can occur in their use. There are additional supplements that, if used together with medication, can increase serotonin levels over their appropriate level. Therefore we must consider what is provided to an individual and understand how different medication and supplements can impact the animal's body and behaviour. For example, if the animal is already on a supplement with higher levels of Tryptophan in it, I would ask them to have discussion with their vet if they suggest the dog is prescribed a medication like Clomipramine (TCA) or Fluoxetine (SSRI) for example.

K20 - The ethics of psychopharmacological intervention and legal position of the Clinical Animal Behaviourist, Veterinary Surgeon and others regarding the diagnosis, prescription and use of drugs and provision of advice.

See K19

EP1 course contained a module on the law and subsection of study was – 'The Law Regarding Behavioural Treatment of Animals, and how this relates to the Veterinary Legislation'. The study I have completed through my degree, EP2, and other webinars and diplomas further advanced my knowledge in this legislative area, as well ongoing discussions with industry professionals.

3 key pieces of legislation that CAB's are required to understand include the following;

- The Veterinary Surgeons act 1966 makes it clear that prescribing a medicine is an act of veterinary surgery and that therefore, with a few exceptions, only a vet can make that decision.

- The Veterinary Medicines Regulations 2013 covers how medicines are classified, authorised, sold, supplied, by whom and to whom, and so on.
- Misuse of Drugs Act 1971 covers “Controlled Drugs” (CDs) – those with significant potential for abuse.

One of the main legislative actions that CABs require a good understanding of is the VMD Prescribing Cascade. Below is an example of what could be described and by who at each stage. (Purple – Step 1, Peach – Step 2, Blue – Step 3, Yellow – Step 4).

Clomicalm (clomipramine): licenced for treatment of separation-related disorders in dogs manifested by destruction and inappropriate elimination (defecation and urination) and only in combination with behavioural modification techniques.

Selgian (selegiline): licenced for the treatment of behavioural disorders of emotional origin in dogs.

Sileo (dexmedetomidine oromucosal gel): licenced for the alleviation of acute anxiety and fear associated with noise in dogs

Pexion (Imepitoin): licenced for the reduction of anxiety and fear associated with noise phobia in dogs.

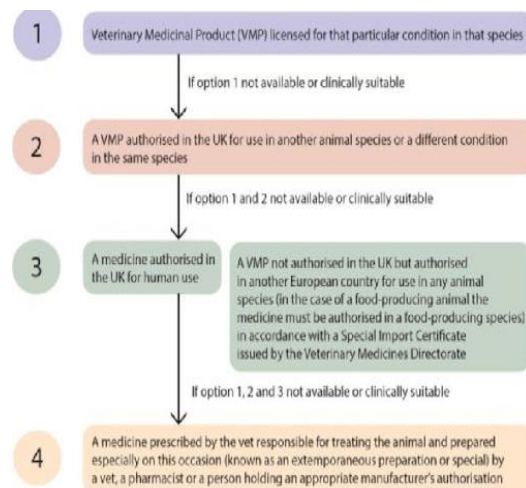
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Sileo (dexmedetomidine oromucosal gel): licenced for the alleviation of acute anxiety and fear associated with noise in dogs

Pexion (Imepitoin): licenced for the reduction of anxiety and fear associated with noise phobia in dogs.

E.g. **Clomicalm** used to treat noise fears in dogs; **Pexion** used to treat anxiety and fear not associated with noise phobia in dogs.



Most situations where psychoactive drugs are prescribed e.g. Fluoxetine used to treat any type of behavioural problem in dogs.

e.g. specially-formulated versions of drugs such as gabapentin in tablet sizes to suit very small animals such as cats, in liquid formulations instead of tablets/capsules etc. usually from a specialist manufacturer/ compounding pharmacy.

In every behaviour case, the ultimate decision and responsibility of medication incorporation is the vets. However, a CAB working in conjunction with a vet aid the vet with a diagnosis based on their observations, history etc. A CAB could guide the vet to research and make suggestions based on their previous experiences and knowledge, if the vet is willing to participate in this form of discussion.

It is imperative that industry professionals and owners understand their responsibilities under the Animal Welfare Act 2006 for meeting an animals needs as well as the Veterinary Surgeons Act 1996 and Veterinary Medicines Regulations 2013. If an owner or other paraprofessional is not aware of what they are and are not allowed to undertake in their role, this could lead to severe consequences. For example, a female cat owner in Northamptonshire was prosecuted for treating her own cat with honey for a wound it had sustained in a fight, the wound became infected and the cat had to have its leg amputated. She was prosecuted for causing unnecessary pain and suffering through her attempts to diagnose and treat her cat. Therefore this demonstrates the need for those working in the

animal industry to educate pet owners on what they need to know in order to successfully take care of their animal, even if they feel what they are doing at the time is in the best interest of their pet.

Briefly provide specific examples of how this learning demonstrates your Knowledge & Understanding

Introduction

Over the last 10 years I have been practising, I started teaching training classes 1-2 hours a week and this developed to up to 8-10 hours a week, sometimes up to 20 depending on what classes are being run and numbers of clients. These classes comprise a variety of age groups, including puppies to adults, as well as rescue dogs. The content of my classes focus on a range of life skill training, scent work, trick training, husbandry tasks, and some hoopers. When undertaking training classes, training and behaviour 1-2-1's, I remain conscious and observant of all the dogs behaviours. For example in puppy classes, puppies are in a very sensitive period of development. During this period, the puppies brains are experiencing lots of neurochemical changes, including strengthening and pruning of neural pathways. As this process is occurring and they start training and learning more, I always strive to make sure that their learning experience is always safe for all and use techniques and approaches that suit the demographic and each puppy as an individual in order to capitalise on what is left of this period. Adolescence is another period that requires great awareness and understanding of what the dog needs during this process, how their brain and behaviours will change and what I suggest to owners for the care and methods provided to their dogs during this time.

During each class, I also observe for any signs of illness or a dog becoming unwell as well as stress. An example of this is if a dog begins to limp or consistently lick a particular area of their body. I have experienced this on a few occasions, one example with a Labrador undertaking hoopers who began to limp on their left hind leg. I noticed additional pressure being placed on that limb and this was added to by some head dropping. I suggested to the owners that they take a pause with their dog, let him rest for the remainder of the session or take him home as well as phone the vets to discuss it. It may have gone by the next day, however the vets identified a ligament issue. Following this diagnosis, the dog could not return until it had taken time to rest and recover.

FAMILY DOG 1

Over my career since learning more about psychopharmacology, I have observed cases where it has been used and supported by professionals in the discussion of its use with the owner. I have also experienced the use of fluoxetine more personally with a family dog, a 12 year old rescue called Eddie. This was prescribed by their vet to support their behaviour modification process with another professional who they worked with closer to them.

With Eddie , I was able to observe his behavioural changes through videos sent to me by my family members. The rescue that they got him from was aware that he faced some physical issues due to his age including arthritis in his spine. Although he could still walk, he didn't like being touched much, and chose when to be near people. He also presented

with anxiety when experiencing novel stimuli e.g., motorbikes at the start. The longer they have had him, the more he has demonstrated more generalised anxiety when introduced to new people, dogs and other environmental stimuli. They took him to a vet near them, and they decided to place him on Fluoxetine to manage his anxiety as well as environmental management and human behaviour changes to reduce anxiety triggers.

- Worked for a period whilst on it, making behaviour changes in anxiety presentation, then they stopped it. This was due to the owners observing a reduction in frequent presentation of anxiety based behaviour so assuming he didn't need to be on it as much anymore.
- They began giving it to him just when they knew he would be exposed to changes in his environment and routine. Based on my knowledge, I was aware of the difference between short and long acting medication and their mechanism of action. Therefore I could observe the issues these clients and their dog may have been facing if using Fluoxetine just when needed. To be clear, I did not discuss this with the owners, I only reviewed this with myself after our initial discussion.
- He then started to show anxiety in different environments again, similar to before he was put on it. The owners were not aware that this medication is long acting meaning giving it just for specific environments would not be effective due to the 4-6 weeks it takes for the medication to begin making changes. They did not talk to their vet again or another professional when deciding to switch up when they were providing him the medication. .
- I recommended the owner have another chat with the vet to update them on Eddie's progress and how they are to use the medication prescribed. The owners decided to put Eddie back on daily Fluoxetine medication again as he was initially prescribed (although this was not directed from me to make this decision), and they booked in with their Vet to have another chat about the situation and what is best for all involved.
- At this time, I did not want to discuss the topic in too much depth with an owner due to the scientific nature of the topic and also to not cross professional boundaries in the topic of medication and psychopharmacology.
- This process was also supported with DS,CC and environmental management set by a professional near her.
- The purpose of the medication was to support the behaviour modification, breaking the process down into incremental steps.
- This was a beneficial experience to have as it required discussing psychopharmacological concepts as well as practice of working within my professional boundaries and not stating or recommended specific medications to this owner.

EXAMPLE 2

With another case I worked on, Poppy an 8 year old Labrador was diagnosed with Idiopathic Epilepsy when she was 4. The vet diagnosed the issue and put Poppy on Pexion (Imepitoin). Imepitoin is a drug that functions as an anti-epileptic and anti-anxiety medication. In epilepsy, this condition is caused by excessive electrical activity in the brain.

As poppy was provided with Pexion, this medication partially activates receptors for GABA (Gamma amino butyric acid). As a key neurotransmitter, GABA reduces electrical activity in the brain, allowing nerve cells to communicate with each other more effectively. Through activating GABA receptors, imepitoin increases GABA's function of preventing seizures and anxiety. This case provided an insight into the different roles of psychopharmacology for non behavioural conditions, allowing me to develop my practice and knowledge into the wider medical area as well.

In Poppy's case, an interesting effect of this medication was improvement in her interaction with other dogs. When the owners first rescued her at 3 years old, she was a little apprehensive around other dogs, not really playing or interacting, the closest behaviour being standing and letting dogs near her. Since she has been on Pexion, her relationship and interactions with other dogs has improved, even to the point of her starting to play with a variety of different dogs. Although this may not have been caused by this medication addition, it is a positive outcome over this period of time. As well as the above, the owner had noticed other behavioural changes since she had been on the medication. Prior to the medication, Poppy was hesitant to walk on certain types of flooring and displayed some anxiety on kitchen flooring and wooden panels. After being on medication for just over 6 months, the owner noticed she began moving closer and closer onto different flooring, particularly if food was involved. This could demonstrate additional support functions this medication provided her.

Over this time, Poppy was seen for regular medication check ups with the vet, and if she had a seizure they would review her medication and raise the dosage if required very gradually. The owners were very open to this addition in order to avoid her seizures becoming more debilitating and regular, so compliance and motivation was high.

EXAMPLE 3

French Bulldog

18 month old female neutered.

I have included a demonstration of my understanding of how medical issues impact on behaviour and how to manage this within a plan. An example of this in practice was a young French bulldog who presented with issues when interacting with dogs and a lack of house training. As well as behavioural interventions for dog-to-dog interactions, this dog was undergoing treatment for skin issues that the vet was in the process of diagnosing. The dog was scratching their body and appeared more irritated when wearing a harness, touching her armpit areas. This health condition had originally been managed with steroids and then moved onto topical non-steroidal cream. To get the full information regarding the dog's medical history, I discussed this further with the vet and they decided based on her current health status to move her from steroid tablets, to non-steroidal topical cream (Apoquel) for the specific areas of irritation. Following this change, the dogs interactions with dogs gradually became less 'intense' and her demonstrating slower greetings with other dogs, incorporating more breakaways and interacting with the foster dad, rather than begin to lunge and bark at the dog. This process was measured very gradually over a method of 3 months, not all at once. These changes were reported and supported with videos sent to me during this time.

Within this case, due to her skin irritations, the vet was currently investigating the potential cause of these issues to be allergy driven. The vets suggested a change of food as it was suggested her previous diet may have impacted the skin irritation she experienced. Diet changes may have an impact on canine behaviour. The above Frenchie was put on a raw turkey based diet with little treats while the vet was undertaking ongoing allergy based investigations. The owners reported that the dog was generally more 'relaxed' at home and took more time to sniff while on walks. In this plan, I also suggested different feed dispersal methods for the owners to use to provide the dog with enrichment during feed time as a method for mental stimulation provision. Although this diet change was not at first behaviour driven, it seemed to be beneficial for this particular dog in more ways than just a medical perspective.

How did this Knowledge & Understanding change or improve your practice? Please ensure you provide examples/detail to support your answers.

Over the last 1 ½ years in particular, I have begun working alongside vets and paraprofessionals more in behaviour cases to continue developing my own practice. This includes beginning working from vet referrals and developing professional relationships with some vets and paraprofessionals e.g., other CAB's or provisional CABS who wish to share and discuss cases where appropriate, within GDPR regulations at all times.

In my ongoing and future practice, I will continue to always work on behaviour cases following vet referrals and continue this from my current practice of requesting clients to visit vet prior to consultation. This part of my professional practice is one of, if not the most important aspect as the vet's role is to complete a full medical check, ruling out any underlying medical issues that may be influencing or causing the behaviours presented. If this is the case following the vet check, the vet may choose to provide medication or ongoing medical support for this issue. If the vet provides a clear referral, this means that there is no ongoing health issue that could be exacerbated or left untreated if focusing on a BMP.

In conjunction with the vet referral process, I have also begun to ask the vets I have worked so far for the clinical medical history of the animal in the case to review any health impacts on the case, for my own knowledge development while allowing the vet to support any ongoing medical needs.

Another addition to my professional practice through examining and learning about how health can interact with behaviours presented, is the use of conferring with other professionals ongoing case issues through sharing videos provided by the clients of the dog or horse when appropriate. Videos are a great source of observing behaviour without causing additional strain or repetition of the issue if recorded correctly and effectively by the owner e.g. only recording when the dog is not placed in a position to act to get the video. Being able to share these videos with vets and other paraprofessionals is highly beneficial for providing second or third opinions on cases and working with other professionals specialisms if a case falls into their remit. Although images are beneficial for some observations of health and behaviour, videos provide a live view of behaviour and physical

interaction with stimuli then images alone.

I also have developed my knowledge, understanding and vet application of psychopharmacology through background reading, topic specific webinars and professional discussions. I have developed my understanding of the benefits and incorporation of a variety of psychopharmacology options for a variety of behavioural disorders. I am likely to consider this within plans in future if required. I also aim to continue developing my knowledge in pharmacology and medication, primarily in how it can affect behaviour presentations.

The more I conduct professional practice, the more I have developed a review process for my document used and consultation practice, as well as my communication with clients, particularly focusing on managing the animals prognosis and progress of the BMP or training plan. This review includes asking myself and the owners questions such as; is the client doing what I asked, are they doing it correctly i.e. following the steps provided. Also considering if they are and not seeing improvement, reviewing the BMP created and finding if I have missed something in my diagnosis of the problem behaviour and how I can manage this and the owner's concerns/progress. I never want to assume that I can not make a mistake in my practice as I am human. What I do want and wish to continue developing is my problem solving and flexibility skills if challenges arise such as those above.

APEL Reflective Accounts Form (for CAB roles)

Please use this form to record written reflective accounts on all learning and training that you are submitting for APEL and how it relates to the Knowledge & Understanding (e.g. Animal Health and Welfare) sections of the standards. This is set out in the APEL Guidelines, as evidence types A, B, C, and D.

Please be aware that specific examples - and detail - in response to the questions below will allow you to demonstrate your knowledge and understanding much more clearly for Assessors than generic statements.

Use one form for each Knowledge & Understanding section, making sure you do not include any information that might identify a specific client, service user, colleague or other individuals.

Name: Candidate A

Knowledge section/ Knowledge & Understanding number(s): Section 5 Clinical Procedures Elements 21-30

What was the nature of the learning?

1. **Education Provider 1 (EP1) Level 5** - This is an ABTC recognised distance learning course, tutor supported.
2. **Education Provider 2 (EP2) Level 5** - This is an independent behaviourist course and qualification, incorporating distance learning and tutor support through email when required as well as webinars to support learning.
3. **Education Provider 3 (EP3) Course** – This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
4. **Education Provider 4 (EP4) Course** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
5. **Professional qualifications, accreditations, CPD and experience (E 9)**- I have been studying since 2014 and have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically.
6. **Education Provider 5 (EP5) FdSc Applied Equine Behaviour** - This was a 2 year full time degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
7. **Education Provider 6 (EP6) BSc (Hons) Equine Science** - This was a 1 year full time top-up degree course in person involving a mix of assignment types such as

reports, presentations, posters, modification plans, and essays.

8. **Education Provider 7 (EP7) MSc Equine Behaviour, Performance and Training** – This was a 2 year part time degree course (due to completing me level 5 DET at the same time) in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
9. **Education Provider 14 (EP14) Level 5 Diploma in Education and Training** – This was a 2 year teaching qualification course onsite. It involved 10 modules across the two years and Turnitin submitted assessments including reports, presentations, and action research.
10. **Education Provider 15 (EP15) Introduction to Psychology – Coursera** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
11. **Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9)** - I have been studying since 2014 and have attended a significant number of courses and webinars along with reading and personal experience that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Morag Heirs webinar on 'Reading and Understanding Scientific Papers'.
12. **Topic Related Background Reading** - I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples.

Why did you choose to undertake this learning?

EP1 Level 5

I started this course to have a UK based Degree level Canine qualification that was recognised by the ABTC and would support my original aim of becoming an CAB. The course covers specific topics such as law and animal welfare, and clinical procedures used within the canine industry. I was already very familiar with these approaches from working with and studying horses in a training and behaviour role as well as working in canine training and behaviour roles and environments throughout my career.

I undertook this course because it provided me with the opportunity to undertake self-study alongside given course resources through distance learning while working full time. For each module and question, I completed a large amount of background and wider research. Although the qualification was aimed at level 5, I feel based on my prior level 7 qualification

and experience, I was able to go above and beyond in my research for each module. This includes extensive wider reading and referencing and consideration of its practical application to a variety of case examples and scenarios. The learning undertaken throughout this course encouraged and taught me further how to apply and continue developing my critical thinking skills and to be aware of my biases, if I had any prior to this course, across different topics. For each module I researched and considered the quality of the studies selected, whether they had been peer reviewed, repeated, etc. and how they contributed to the points I was aiming to develop.

EP2 Level 5

This was a 5 module based distance learning course, and my aim was to get a better understanding of dogs and their needs. As I already had equine qualifications, I wanted to gain a canine behaviour based qualification which included a set of 4 modules and the final assignment being a full practical behaviour case with a 5000 word write up report. I was already aware and understood the importance of understanding the components of behaviour modification protocols, report and plan design, therefore this contributed to my current knowledge in the area and further developed my skills as an individual working in behaviour.

EP3 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of cats and dogs (dogs in particular) and their physical and psychological needs. This course provided me with focused discussions and assessments on animal care across a variety of species as well as continuing developing my canine knowledge in particular.

EP4 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of Animal Welfare in a variety of animals including pets and farm animals. This course provided me with focused discussions and assessments on welfare across a variety of species as well as continuing developing my canine knowledge in particular when discussing welfare assessments.

Professional qualifications, accreditations, CPD and experience

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. I have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically. When I was selecting CPD opportunities, I chose practical CPD and examinations with the goal to either supplement and broaden my knowledge of a certain area where I feel it may be weaker, or to support and go deeper with what I have already learnt or is relevant to my practice. There are a number of reasons for this which include; personal growth, this being my hobby, a requirement for a former role to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

My experiences as a degree lecturer and MSc student involved many scenarios where critical thinking and evidence gathering was a requirement of the role and running my own business where everyday I read new information, look at its sources, validity, and areas for development in order to support my practice.

EP5 FdSc Applied Equine Behaviour

This course was a 2 year full time in person foundation degree. This course involved many modules, some animal general such as anatomy and physiology, and more equine specific modules such as introduction to equine behaviour and applied equine behaviour. I chose this course because I have always had a love and passionate interest in animal behaviour, equine specific following early years of equine behavioural rehabilitation and rescue support. I had the goal of wanting to understand the theory behind the process of learning, training, behaviour, welfare, and neurobiological principles specifically.

EP6 BSc (Hons) Equine Science

This course was 1 year top up degree in Equine Science, covering a range of topics including, equine fitness and performance, riding coaching and performance, equine welfare and ethics and advances in complementary therapies. At the time, I was wanting to complete a top-up in applied equine behaviour directly, however that course did not run so I completed this top up instead which provided me with a range of theory knowledge and skills that I may not have developed otherwise. This supported me when deciding to apply onto my Masters programme. This course involved a dissertation with a research proposal, reports, critical reviews, debates, abstract writing, presentations and posters.

EP7 MSc Equine Behaviour, Performance and Training

This masters degree course was a 2 year part time course due to me undertaking my level 5 DET qualification at the same time. This course involved a masters thesis creation, applied animal behaviour science modules as well as specific equine training and performance modules, and research methods sessions. The degree was assessed through large scale reports, pilot studies, essays, small studies and presentations. I chose to undertake this degree as it was one of the sole UK based masters degrees with a focus on equine behaviour specifically at the time, supporting my goal of becoming a CAB from the equine perspective as well as canine.

Topic Related Background Reading

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9)

I have been studying since 2014 and have attended a significant number of courses and webinars that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current

dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP15 Introduction to Psychology – Coursera

This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall. There are a number of reasons why I undertook this course which include; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB. This course provided me with a more in depth understanding of human behaviour and how this could affect their relationship with their dog and their behaviour during the consultation or training process.

EP14 Level 5 Diploma in Education and Training

This was a 2 year teaching qualification course onsite. It involved 10 modules across the two years and Turnitin submitted assessments including reports, presentations, and action research. This course was my first full in depth opportunity to learn how to teach in an educational setting which was one of my career goals, to lecture in a variety of animal science subjects. During the completion of this course, I was also teaching on access to the course in their bioscience module while developing my teaching practice before being hired in my current teaching position. This course has provided me with effective communication, organisation, and behaviour management skills which is highly beneficial for working in a clinical position with clients as well as in a training class and 1-2-1 scenario. There are a number of reasons for the completion of this course which includes; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

How is your learning relevant to the Knowledge & Understanding?

The courses discussed above cover all the elements of Clinical Procedures standards K21 to K30. This evidence is also supported by my CPD examples which I believe provides the knowledge requirements asked for by the ABTC to be recognised as a CAB. Throughout my reflective statements below, I have provided some case examples to demonstrate the evolution of my knowledge, understanding and critical thinking skills. Where appropriate I have discussed and checked these cases with other qualified industry professionals e.g. other CAB's.

K21 - The range of common behavioural disorders in animals to include phobias, aggression, stereotypies, anxiety related behaviours, and how to identify and critically evaluate contributing factors.

The EP1 course is independent distance learning and is supported by tutors throughout. A large portion of this course required many hours of additional background research and reading above the information provided through the course to support answers and approaches as well as demonstrating my academic skills as an evidence based practitioner. To support the topic of clinical procedures in this course, specific modules included:

Behavioural Diagnostics

- The many possible causes of a particular behavioural problem (root causes of

behaviour)

- Environment, nature, nurture, pharmacological, physiological causes, and how more than one of these could be the cause of a problem
- How we can diagnose the cause of behaviour, by asking questions and analysing the situation
- Drawing on knowledge gained from the previous modules to discuss all the possible reasons why a dog is behaving in a certain way
- Designing history sheets to use during client consultations

Case Studies

- Analysis of case studies to pull together all the knowledge gained throughout the course.
- The examination of ten different behavioural problem case studies
- Suggesting how you would go about assessing and solving the problems
- Demonstrating knowledge of all factors that might affect canine behaviour, including learning, genetics, and biological and environmental factors
- Suggestions for solving problem behaviour
- Production of professional reports and letters to clients and veterinary professionals

The syllabus was written to meet the ABTC Standards so I know my work and feedback is directly linked to the organisation and roles needs. My work for this course was relevant and the case studies at the end of the course, due to aligning to the ABTC standards, demonstrated my understanding and application of the knowledge I had gained through the course and my education throughout my career so far.

My CPD has also included several webinars which included last year Kevin McPeake's discussion of his Canine Frustration Research. This webinar introduced me to the various tools used to measure and score behaviour. Such as the The Positive and Negative Activation Scale (PANAS) which can be used for "high risk behaviour problems" and the Canine Frustration Questionnaire (CFQ) which again can be used for a variety of reasons "as a clinical tool when assessing the likely contribution of frustration tendencies in dogs with behaviour problems".

Through my additional research, the EP2 course, and my masters programme, I have learnt how to undertake differential diagnosis in a variety of cases, understand influencing factors on behavioural aetiology as well as methods used to measure and describe these factors. Completing a differential diagnosis can allow professionals to create a list of potential possible conditions or factors that could be causing or influencing the behaviours observed, allowing the behaviourist to come to a conclusion of what the key issues are in a key and selecting appropriate methods moving forward in a BMP to support the individual animal and owner. Differential diagnosis in a behavioural setting could include environmental, emotional, or medical conditions that may be influencing a given case example.

To understand this concept further and consolidate my learning, I aim to continue to discuss cases with other professionals and review my differential diagnosis. While I undertake this in my practical professional practice, I continue to read published work focusing on behaviour cases and process including the following authors and books;

- Overall, K. (2013). *Manual of Clinical Behavioral Medicine for Dogs and Cats-E-Book*. Elsevier Health Sciences.
- Bowen, J., & Heath, S. (2005). *Behaviour problems in small animals: practical advice for the veterinary team*. Elsevier Health Sciences.
- Landsberg, G., Hunthausen, W., & Ackerman, L. (2011). *Behavior problems of the dog and cat*. Elsevier Health Sciences.
- Horwitz, D. F. (Ed.). (2018). *Blackwell's five-minute veterinary consult clinical companion: canine and feline behavior*. John Wiley & Sons.
- Hedges, S. (2021). *Practical canine behaviour: for veterinary nurses and technicians*. CABI.

These sources continue supporting my knowledge and understanding of a variety of topics as well as reviewing real world cases and applying my knowledge learnt into a practical setting.

A study published in 2020 by de Assis et al. examined Developing Diagnostic Frameworks in Veterinary Behavioral Medicine: Disambiguating Separation Related Problems in Dogs. Within this study, the authors listed many behavioural signs consistently contributing to the variation seen in the presentation of separation related problems, such as urination, destructive behaviour etc. Papers such as this aid in understanding factors which contribute to the development of a variety of behavioural issues and how we as professionals incorporate and evaluate methods used to assess these.

K22 - The appropriate application of the principles of ethology and learning theory to the diagnosis and treatment of common problems.

See K21 – this standard was also covered throughout the EP1 course, EP2, and Degree programmes.

Areas covered with the EP1 course and highlighted in my EP2 and degree courses include the following;

Application of Theory

- The way we interact when dealing with dogs, and how our own behaviour can potentially influence theirs
- Fear and how to deal with it
- Aggression and why it might occur and how to deal with it
- The scientific study of behaviour, including presenting reports, interpreting data and graphs
- Carrying out an observational study of your own on canine behaviour
- Analysing different methods of dealing with a behavioural problem to determine the likely success of different approaches

As mentioned in my K1-K5 Standards, I highlighted my knowledge and understanding of 'Ethology', being the scientific and objective study of animal behaviour. Key researchers in this field include the ethologists Dr Konrad Lorenz and Niko Tinbergen. Between these two scientists, they discovered and established theories behind imprinting, fixed action patterns and the four whys. These theories allow further understanding of species specific 'normal' behaviour as well as creating methods in which professionals can ask questions to

understand why a behaviour outside of this 'norm' is occurring.

Throughout my studies and practice, I have learnt just how important it is to understand how many behaviours that animals perform are perfectly normal and adaptive to the given species with the aim of providing the individual animal with the highest chance of survival and reproductive success. However, from the owners perspective, these behaviours may be perceived as 'a problem' or 'undesirable'. For example, searching for food or preparing to sleep by roughing up a floor, or chewing etc. Understanding and being able to effectively identify what is perceived and classified as 'normal' for an animal allows professionals to use these behaviours as a baseline to then identify what is 'abnormal' or not typical for an individual animal, allowing a support plan to be discussed and further exploration into the aetiology of these issues.

In addition to the above courses, I have watched webinars/TED talks in this topic area across different species. One webinar I watched was led by Kim Brophy, called 'What causes behaviour and why?'. I have also attended other topic specific webinars to develop my knowledge in CPD of the incorporation of learning theory and ethology into case study examples. This includes the following examples;

- Loni Loftus June 14th 2023 Horse Trust – Rescue Pony Case Study
- Kayna Prescott July 12th 2023 Horse Trust – Pony with fear of people
- Talk research Webinar with Dr Rebecca Smith - Caring for the older horse: using research into owners' and vets' experiences to identify ways to improve older horse care. June 22nd 2023 FABC
- Why do people adopt dogs? How motivations for dog acquisition differ between individuals. – 12th April 2023 FABC
- Research Bites with Dogs Trust – A focus on Canine Behaviour Problems, Training and Exercise. – 7th June 2023 FABC
- Research Bites with Dogs Trust – A focus on Veterinary Healthcare During the Pandemic & the Integration of Behaviour in Veterinary Practice. , presented by - Kassandra Giragosian / Sara Owczarczak-Garstecka – 5th July
- 12th July FABC Dogs Trust Case – Rain, Merry Westall
- FABC Set of Horse CCAB Videos - [Horse Case Study Days | FAB Clinicians](#)

From my degree courses and earlier studies, as well as the above case sessions and other webinars, I am very familiar, comfortable and confident in the incorporation and application of learning theory and ethology into the diagnosis and treatment of common behavioural issues either species may experience. In addition to this, it has also been very important for me to not only study certain knowledge in one species e.g., DS and CC protocols in behaviour modification, but first fully understand the theories and then learn with both theoretical and practical experience how to apply these in practice in both species. It is important not to assume that just because you can apply something in practice in one species that it will be the same in another. This could prove harmful if applied incorrectly.

K23 - The key principles in human and family psychology, to include attitude theory, processes of inter-personal relationships, grief and bereavement.

Throughout my study for EP1, EP7, EP2, professional experience and CPD, I have learned about human Psychology which has included how attitudes influence our behaviour and why it is important when understanding and working with clients. Human psychology is one of my favourite areas of study outside training and behaviour of the animals I specialise in. As well as completing a sport specific psychology diploma, I also have completed an introduction to psychology diploma to support my human knowledge and understanding as well as in the future wanting to complete a second masters degree in human psychology due to my passion in the subject.

An example of the knowledge and understanding I have gained through these qualifications and experiences is the importance and role of 'attitude' in human behaviour and how this is present in the professional-owner relationship. Research defines attitude as a "learned tendency to evaluate things in a certain way". Attitudes can be established through different factors (social factors, learning, experience etc.) and research has aimed to explore how they impact behaviour under certain conditions and how we may change them to match behaviour, for example cognitive dissonance etc.

There is little academic research on canine owners in a training and behaviour scenario, particularly in relation to the psychology in this demographic and how this relates to professional practice for trainers and behaviourists. One book I have read and encourage other professionals to read is 'The Human Half of Dog Training' by Rise Van Fleet. This book provided me with further education and understanding of relationship intricacies, how these influence the relationship with their pets and the professional as well as listening and empathy skills, building on my current skill and ability in this area.

Unfortunately due to personal experience as well as CPD/self- study, I have learnt about grief and bereavement. This experience and CPD was not only at the loss of animals, but working as a teacher and support mechanism for students in different scenarios for many years where I supported students who had experienced loss, traumatic death, and families in grief. I have some training in this area that occurred during my teaching qualification as well as when I started my current HE lecturing and course managing role, however I also understand the benefit of signposting my students to other wellbeing and counselling professionals if the need sits outside my knowledge scope, similar to using referrals in my animal based practice. Through additional reading to support my knowledge, I also have learnt more regarding the stages of grief including denial, anger, bargaining, depression and acceptance.

K24 - The principles of effective counselling and how to apply to facilitate and maintain behavioural change.

My EP1 course continued to place a large emphasis on standards K24 to K30 in depth. The course is written to meet the CAB standards.

For example:

- Maintaining a professional image when dealing with clients and the veterinary profession when working as a behaviourist
- The importance of excellent communication skills
- Dealing with clients, using tact or sympathy when dealing with clients and difficult

situations

- Designing promotional material
- Writing letters to veterinary professionals

The process of counselling and consulting in behaviour practice focuses on causing Human Behaviour Change (HBC) in order to support and see changes in the relationship of the dyad as well as in the behaviour of their animal. The theoretical research behind HBC encompasses areas such as Psychology, Social Science, Coaching, Education, Cognition and Learning, Behaviour Change Theories and Models, Social Marketing and more.

Part of the process of HBC includes understanding the challenges owners may face at different points during the consultation, counselling, and BMP process. Challenges owners may face during can include the following and must be considered by the professional as explanations for owner behaviour.

- Judgement (CPD)
- Floundering
- You keep offering solutions
- Reluctant to make changes
- Crying/ aggression
- Perceived support of 'other' methods
- Stumbling blocks
- Difficult discussions
- Less is more

In conjunction with the above processes, I have also spent time learning about and developing my practice in using Motivational interviewing techniques within my consultation and counselling process in order to support challenges owners may face before, during, and after the support is put in place.

- *"MI is a collaborative, goal-oriented style of communication with particular attention to the language of change". It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion.*" (Miller & Rollnick, 2013, p. 29)

MI can be classed as 'Guiding style of communication'. This guiding style involves following (listening) and directing (providing info and advice). The technique of MI was established in medical settings to target challenges in compliance and change. It has been incorporated into veterinary settings, as well as behavioural consultations. Ballantyne and Buller (2015) investigated experiences of veterinarians in clinical behaviour practice and what techniques may be more beneficial to support their practices in both full veterinary and behaviour consultations and plans. The study highlighted that *'Additional training in motivational interviewing may improve communication skills of veterinary behaviour teams and could potentially improve treatment adherence and outcomes'*. This study was one of the earlier and impactful studies examining the technique in an animal behaviour setting, supporting its use and continued CPD for practitioners in veterinary practice, which could also be taken for CAB's outside of this environment.

I have included my EP14 Level 5 Diploma in Education and Training as this course demonstrates my broader knowledge of working with, teaching and coaching students/people, which requires knowledge and understanding of education and human psychology, good communication and coaching skills. This knowledge and the skills it helped develop is imperative for my current HE lecturing and course managing role as well as when working as a trainer, behaviourist, and equine coach/riding instructor.

K25 - The range of effective communication skills, both in the collection of relevant information and provision of advice in face to face or remote consultations and communication via telephone, email, letters and reports with clients and relevant professionals, and how to assess and resolve issues relating to client understanding.

See K24 above

In addition to my courses, I have worked on cases that are based solely in person following phone conversations and cases that are solely based over teams or zoom during the plan due to being far away from the owner and animal or when it may not be feasible to meet in person for any reason. In conjunction with these approaches, I also conduct hybrid consultations and sessions that incorporate a mix of zoom/teams sessions and in person meetings to meet the individual needs of both myself and the owner for training and behavioural cases. When communicating with my training clients, particularly those that are in a group class, I set up group whatsapp chats where the owners can get to know each other, share experiences, and build each other's confidence over the class period. I use whatsapp as well for individual training and behavioural cases, where it becomes useful for sharing videos when reviewing progress during a case. This action allows owners to check in with me when they need to as well as maintaining consistent contact and I can send coaching/instructing/Consultant videos back to the owners.

Throughout my own practice, whether dogs or horses, I often liaise with other professionals, including other CAB's, vets, vet behaviourists, other trainers, groomers, dog-walkers, pet sitters, riding coaches, physiotherapists and of course owners etc.

Using specific client communication techniques, I aim to maintain client compliance and learning through the use of the following techniques at different stages of the process to promote and maximise information absorption and retention.

- Short consults!
- Summary hand out
- Fact sheets
- Repetition during consultation. Get the client to repeat it back. Get the client to do the activity –not necessarily with the animal.
- Ask how they would teach the information to someone else –a family member, a friend, a neighbour. (rehearse, teach)

Other communication techniques to be aware of within CAB consulting and counselling processes is the Six Principles of Persuasion established by Robert Cialdini. These six principles aim to help develop trust, a positive professional reputation, the creation and maintenance of clients who can and will advocate my practice and business to others in the industry and the public. The principles include the following.

1. Social Proof
2. Commitment
3. Liking
4. Authority
5. Reciprocation
6. Scarcity

Taking one example of the above, Commitment as a principle states that *'building trust and credibility of your service/products. If you say you are going to do something, you do. Perceived as reliable and trustworthy as a business, particularly when focusing on someone's pet/child'*.

Learning more about these principles have allowed me to make adjustments to my practice as well as my mindset surrounding my processes as my main aim moving forward is to continue building credible practice and trust in my processes and techniques. The function of this is to build a client base that perceives my practice as trustworthy and reliable as well as enjoyable and supportive.

K26 - The interactions appropriate in professional relationships and how to apply these in practice.

See K24 and 25

K27 - The common professional, ethical or other issues that need to be considered or may arise before, during and after a consultation; and the action that is appropriate to address these, including an appreciation of the value of further referral.

The counselling section of the EP1 and EP2 course covers this in their relevant sections. This information was also supported through my degree courses, teaching qualification (DET) and additional reading around the topic area. Using and understanding the benefits of referrals in this industry is highly important, in order to make sure you are providing the most appropriate support for that specific animal and owner as well as not putting an individual at risk. I make sure to discuss and emphasise this with all my students in my current position and other professionals I communicate with. An example of when I refer cases in my practice is certain aggression specific cases and those with health issues involved that require more long term support. In general, if I feel I am not 100% comfortable and confident in my practice to take on a specific case, I will contact other fully qualified individuals who may specialise in that area and refer the case to them.

I will also refer to other clinical and vet behaviourists when I feel this is beneficial too, particularly for medication needs, where I feel a health issue is largely present and influencing the case as well as if I judge I am not suitable to support a specific case etc. In the future, I would like to, where possible, work in conjunction with the VB as part of the vet led team helping the dog. To support this future goal I have undertaken additional CPD in the form of webinars e.g. EP2 Trainers working with vet lead teams to support my knowledge of this working relationship.

K28 - Methods for gathering and recording information relevant to the diagnosis of a behavioural disorder and how to critically evaluate and appraise it.

Throughout my education (EP5, EP6, EP7, EP2, EP1, EP10, EP11 and more), and my practical experience in the field of training and behaviour, I have been required to gather case information through history collection questionnaires and in person verbal consultations. This process allows me to establish timelines of the behaviours identified and critically evaluate the evidence the owner has provided me with and my own thoughts of the case, use industry evidence and research to support my process throughout. This was a requirement of the courses and the industry role.

I use this information to aid in the creation of a BMP as well as a risk assessment for the specific case and environment after the initial diagnosis within the case. This process involves drawing upon predisposing factors, maintaining factors, and differentials to establish an accurate and tailored BMP for the specific animal and owner.

K29 - The construction and delivery of appropriately structured treatment regimes that are likely to be effective for behavioural disorders identified.

Construction and delivery of BMP's has been a large part of both my EP5 FdSc (equine specific), EP7 MSc (equine specific), EP2 course and EP1. This can be evidenced in areas of the courses, for example the Case Studies section of EP1.

Case Studies

- Analysis of case studies to pull together all the knowledge gained throughout the course
- The examination of ten different behavioural problem case studies
- Suggesting how you would go about assessing and solving the problems
- Demonstrating knowledge of all factors that might affect canine behaviour, including learning, genetics, and biological and environmental factors
- Suggestions for solving problem behaviour
- Production of professional reports and letters to clients and veterinary professionals

As well as being confident in identifying behavioural disorders through observation and discussion, it is important to understand what methods would be beneficial to incorporate into a specific BMP, whether it requires behaviour modification alone, or a mixture of behavioural and medical intervention within a structured BMP. Additional methods to consider that are used in BMPS include DS, CC (counter), DRO or DRI.

When creating a BMP, I always consider ethical components in terms of making sure I promote ethical practice. This is supported by considering ethical frameworks to use throughout my practice including LIMA principles and the Humane Hierarchy. These frameworks act as a guide for professionals as well as being in line with set ABTC standards and guidance.

During the creation of a BMP, it is beneficial to incorporate a set of criteria that the professional can use to observe and assess whether any changes or adjustments to the plan is required, as well as allowing the identification of goals for both the animal and owner that can be both short and long term, supporting compliance, engagement and motivation throughout the BMP process. In each week or each activity in plans I create, I find it

beneficial to incorporate a list of criteria adjustments, either to raise, maintain, or lower them depending on the progress of the owner and animal. I can use this approach to assess progress, as well as owner and animal understanding and providing the owner with steps noted down for how to progress and when to if appropriate. Other methods which can be incorporated to support reviews is the Think-PlanDo review which I sometimes use in my practice with dogs, horses, and their owners.

K30 - How to identify situations where further action may be necessary, including ways in which compliance with an extended treatment regime may be encouraged.

As above,

All the courses I have listed in this section, result at some point, in reviewing progress and where further action may be necessary, this may be by scheduled follow-up, ongoing feedback, data tracking etc.

Through my education in the EP1 course, and additional research, I learnt the importance in discussing the prognosis of a case and particular behaviours, both for other professionals and how to communicate this to owners in an effective manner. Background reading and investigation has also introduced me to the CEB model by Jan Donaldson, highlighting the key areas of Compliance, Education, and Diagnosis during the consultation and BMP process when working with owners. In addition to this model example, other researchers incorporate additional methods to review BMP's during their implementation to assess its progress and success, potentially suggesting methods to adjust the plan to allow for meeting the individual needs of the animal one is working with. For example, functional analysis or assessment is typically used at the beginning of a BMP process, in conjunction with differentials to highlight the key issues that require support. Dr Susan Friedman further supports the use of functional assessment to develop hypotheses about the functional relations between behaviours and the environment the animal is in. This assessment can improve our understanding of behaviour and provide a level of predictability in behaviour identification as the plan progresses. Dr Friedman has also suggested undertaking an additional functional analysis session or assessment as a way of measuring prognosis and the need for adjustment further on during incorporation of the plan as well as in the early stages.

Briefly provide specific examples of how this learning demonstrates your Knowledge & Understanding

INTRODUCTION

Throughout the reflective logs I have completed, I have given examples where I demonstrate the required Knowledge and Understanding for this particular section. In the below example, I focus on how I have demonstrated my understanding of learning theory and ethology in order to demonstrate progress and success in a given case. The case below involved my understanding of owner behaviour and how factors can influence their interaction with their animal, myself as the practitioner, and the plan put in place. This case also required my secure knowledge and practical understanding of demonstrating empathy, building trust in my relationship with clients and my overall listening skills during conversations and consultations. Overall, I feel I am effective at the above skills, although I always develop this

when I can. In addition, this case process required understanding the owners previous experiences they have gone through, and building professional relationships. Creating and maintaining a good level of client compliance was of high importance. This was supported through regular progress reviews conducted between myself and the client as well as coaching sessions during practical protocol discussions. This case lasted for over 6 months to support the animal and owner, which meant motivation level had to remain high and consistent. For this particular case, I decided to use discuss the case with other professionals while maintaining GDPR. I also incorporated different communication methods to convey reports, short messages and progress reviews through written messages, images and videos.

EXAMPLE

10 year old Welsh Section D Gelding – Kicking out and slight spinning on the ground and when ridden, particularly when applying the leg aid, doing a girth up and general grooming.

This case was undertaken in November 2021 and lasted for approximately 2 and half months. The female owner contacted me after being recommended by another client of mine. The owner mentioned they had had a prior negative experience and financial overpayment with other trainers and professionals in the industry therefore had avoided asking for additional support with their horse for approximately 8 months before November 2021.

I contacted the owner back, asking them if they could join me for a teams meeting to discuss the case and their prior experiences. My aim during this was to build a trusting relationship between the owner and myself, and to reassure the owner of my experience and process as well as financial cost to make them fully aware of what they would be required to undertake.

I also asked the owner to send any information they had been given or had been collected by any previous professionals to add to my assessment of the case. We began to build a good relationship over the teams meeting and we discussed the next stage of the process if the owner decided to work with me. The owner formally asked me if I would work with them the next day following this meeting. We started the formal process on this day.

As they had made me aware they had experienced previous work with other professionals, it did make me conscious that they had probably completed several and possibly extensive history taking exercises prior to our discussions. Following this, I also thought that if I asked them to complete another, it may be frustrating for them to experience again and I did not want to put them through a negative experience again. In conjunction with this, I was trying to avoid being influenced by other professionals' decisions that they had made on the case before I began my relationship with the client.

After the history collection and consultation, I wanted to start this case with asking the owner to have the horse receive a full vet check and referral to check for any medical conditions that could be affecting the behaviour. From the case information I had collected up to this point, I suspected that the horse may be suffering from a potential gastric or colonic ulcer

based on the behaviours presented by the owner. However, I am aware I could not fully suggest this therefore, referring to the vet allows the GIT to be assessed for any particular issues. I explained during this process that it is best practice to involve the vet to avoid using protocols that could exacerbate any underlying health issues.

I have worked with many horses that have experienced undiagnosed GI issues, particularly gastric or colonic ulcers. This horse displays very similar signs to other cases I have worked on. I had this discussion with the owner and they agreed to report these symptoms and issues to their vet and ask any questions they have. The vet agreed to explore the GIT further as a medical link to the behaviour, resulting in the horse undergoing medical care. The subsequent diagnosis following this vet referral was a medium sized gastric ulcer diagnosed in December 2021.

After the horse received medical support for the ulcer over the next few months, the owner contacted me again after the horse had been signed off by the vet for work again as the behaviours were still being presented. I arranged a second teams meeting after the horse had received medical support. the initial meeting and then consultation in March 2022. In this meeting between myself and the owner, I was able to ask and understand the following aspects.

- Why the owner wanted to seek help
- What the owner wanted to achieve during this process.
- Ask questions to fill in any gaps that are left following the questionnaire and consultation.
- Set expectations from by myself and from the owners perspective
- Provide me as the practitioner with the most up to date information on the horse, the behaviours raised, the management and routine of the horse and owner, and current owner feelings, and thoughts on the process.

After completing the above, I discussed with the owner the impact that health conditions can have on equine behaviour and how, specifically, gastric ulcers can result in a variety of other learned behaviours, developed out of pain and discomfort, as well as fear of the pain and potentially anxiety linked to being touched and pressure added.

Following this initial discussion and the full history collection with consultation, I wrote my full report on the case and a BMP to put in place for both the horse and the owner. I aimed for the report to be as concise and readable for the owner to absorb and understand. This report includes steps for what I was suggested to put in place and for the owner to put into practice within condensed 2 pages to begin with to not overwhelm them. After this was provided we discussed the process over a teams meeting, we kept regular contact up every couple of days through whatsapp messages.

As mentioned above, at the start of the consultation process, myself and the owner discussed what their goals and aims were for this process and used them as a framework for the plan. This involved discussing how we were going to measure progress and what to expect in terms of managing their expectations of progress speed and change. Following our discussion, the owner felt more at ease with taking time for the plan to take effect, even

after their previous negative experience.

During the time period of this case, I encouraged the owner to record baseline behaviours, as highlighted in other cases discussed for at least a week prior to our first process session. This involved recording, sending and sharing videos and written descriptions of behaviour and sessions with me, promoting asking questions if they are struggling or not sure of an aspect of the process, as well as sharing both moments of struggle and positive progression moments. Through sharing positive experiences as well as negative, we can celebrate the progress and success while reinforcing the effort and approach of the owner and horse. I also aim to provide the owner smaller, achievable goals that they can complete more quickly, seeing small aspects of progress to maintain and build motivation, compliance, confidence, and engagement with the BMP process.

Process

In this specific case, we incorporated a range of training and modification protocols to support the horse and owner. The aim of the following processes was to change the conditioned emotional response the horse had built while experiencing the ulcer in a variety of scenarios including riding, grooming, and girth tightening. These methods also included general relationship building exercises between both horse and owner. These processes include the following;

- DS and CC around grooming equipment.
- Ground work, adding gradually pressure from a schooling whip rather than leg and building up to leg simulated pressure (hand pressure) – DS and CC where appropriate
- Adding environmental enrichment in stable – food toys, and salt lick.
- Adding some free schooling and liberty work to train without body contact similar to riding as well as building relationships between the owner and horse.
- Additional training tricks to provide enrichment and stimulation without riding while healing from ulcer.

The above methods and approaches were gradually introduced over a period of 2 months of more regular sessions (10-15 minutes most days), which including using enrichment and training activities to mentally stimulate the horse while still recovering from the ulcer, then building up to DS and CC in the above scenarios, one at a time e.g. grooming first, girth, riding (over 2 months). By the end of this process, the owner had begun riding again in walk and trot (& pole work activities), soon to start canter work again.

Throughout the entire BMP process, the owners remained as positive as they could with some ups and downs, but continued to be extremely compliant with the approach with instructions, ultimately resulting in the owner, horse and I exceeding the initial goals, establishing a stronger relationship between the horse and owner, and building a trusting relationship between myself and the owner. I thoroughly enjoyed working on this case.

How did this Knowledge & Understanding change or improve your practice? Please ensure you provide examples/detail to support your answers.

Throughout my practice, I have continued to develop my communication methods with clients, whether behaviour and training 1-2-1's or group class clients. This includes use of whatsapp for the majority of digital communication as well as email, to share videos, pictures, video messages and voice notes where appropriate to contact owners and the owners to share their progress as well as ask questions when needed. This approach has shown to develop and support owner compliance, engagement and motivation in groups and 1-2-1 cases.

In discussions with owners, I use a variety of laymen's terms when using more intense scientific vocabulary, as well as using analogies, similar examples to current case from other scenarios to build confidence in owner of my abilities and how support can be beneficial, as well as using a variety of teaching techniques to meet the individual needs of the owners. This can include if owners have physical mobility limitations that require tailoring a technique for, if a student is Autistic, Deaf, or when English isn't their first language. I have worked with a few owners that are hard of hearing (dog owners) and some that were autistic (horses). These owners shared the frustration they feel when figuring out how to communicate in the most effective way that meets their needs. I shared with them, during our owner education discussions, how this can translate to how animals experience frustration following miscommunication and the impact of this on emotional states and welfare. This also was used to help owners understand why their animal may be reacting or non-reacting to the owners handling or training techniques.

Over the last 2 years, I have made it one of my areas of focus to fully develop an effective follow up report template and process using case specific details to tailor the reports. Part of this process involved the following; Transferring my concise writing skills from my academic courses to reports, using progress review points to develop owner compliance and making sure I pick out key information from consultations, case histories and reports to undertake a thorough analysis of each case. This process was supported by asking vets what aspects they would like to see in paraprofessional reports that could aid the process once the forms are shared. Overall, this translates to having reports written in fewer words, therefore making it more engaging for the owner to read, yet covering all the key information required.

The more I conduct professional practice, the more I have developed a review process for my documents used and consultation practice, as well as my communication with clients, particularly focusing on managing the animals prognosis and progress of the BMP or training plan. This review includes asking myself and the owners questions such as; is the client doing what I asked, are they doing it correctly i.e. following the steps provided. Also considering if they are and not seeing improvement, reviewing the BMP created and finding if I have missed something in my diagnosis of the problem behaviour and how I can manage this and the owner's concerns/progress. I never want to assume that I can not make a mistake in my practice as I am human. What I do want and wish to continue developing is my problem solving and flexibility skills if challenges arise such as those above.

APEL Reflective Accounts Form (for CAB roles)

Please use this form to record written reflective accounts on all learning and training that you are submitting for APEL and how it relates to the Knowledge & Understanding (e.g. Animal Health and Welfare) sections of the standards. This is set out in the APEL Guidelines, as evidence types A, B, C, and D.

Please be aware that specific examples - and detail - in response to the questions below will allow you to demonstrate your knowledge and understanding much more clearly for Assessors than generic statements.

Use one form for each Knowledge & Understanding section, making sure you do not include any information that might identify a specific client, service user, colleague or other individuals.

Name: Candidate A

Knowledge section/ Knowledge & Understanding number(s): Section 6 Law and Ethics Elements 31-33

What was the nature of the learning?

1. **Education Provider 1 (EP1) Level 5** - This is an ABTC recognised distance learning course, tutor supported.
2. **Education Provider 2 (EP2) Level 5** – This is an independent behaviourist course and qualification, incorporating distance learning and tutor support through email when required as well as webinars to support learning.
3. **Education Provider 16 (EP16) Dog Law** In person workshop event at Dig it Dogs Sandbach.
4. **Education Provider 4 (EP4)** This short coursera course was run by staff at and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
5. **Professional qualifications, accreditations, CPD and experience** - I have been studying since 2014 and have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically.
6. **Webinars (Safety and Risk Assessment)**- I have been studying since 2014 and have attended a significant number of courses and webinars along with reading and personal experience that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Morag Heirs webinar on 'Reading and Understanding Scientific Papers'.
7. **Topic Related Background Reading**- I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a

variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples.

8. **Education Provider 5 (EP5) FdSc Applied Equine Behaviour** - This was a 2 year full time degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
9. **Education Provider 6 (EP6) BSc (Hons) Equine Science** - This was a 1 year full time top-up degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
10. **Education Provider 7 (EP7) MSc Equine Behaviour, Performance and Training** – This was a 2 year part time degree course (due to completing me level 5 DET at the same time) in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays

Why did you choose to undertake this learning?

EP1 Level 5

I started this course to have a UK based Degree level Canine qualification that was recognised by the ABTC and would support my original aim of becoming an CAB. The course covers specific topics such as law and animal welfare, and clinical procedures used within the canine industry. I was already very familiar with these approaches from working with and studying horses in a training and behaviour role as well as working in canine training and behaviour roles and environments throughout my career.

I undertook this course because it provided me with the opportunity to undertake self-study alongside given course resources through distance learning while working full time. For each module and question, I completed a large amount of background and wider research. Although the qualification was aimed at level 5, I feel based on my prior level 7 qualification and experience, I was able to go above and beyond in my research for each module. This includes extensive wider reading and referencing and consideration of its practical application to a variety of case examples and scenarios. The learning undertaken throughout this course encouraged and taught me further how to apply and continue developing my critical thinking skills and to be aware of my biases, if I had any prior to this course, across different topics. For each module I researched and considered the quality of the studies selected, whether they had been peer reviewed, repeated, etc. and how they contributed to the points I was aiming to develop.

EP2 Level 5

This was a 5 module based distance learning course, and my aim was to get a better understanding of dogs and their needs. As I already had equine qualifications, I wanted to gain a canine behaviour based qualification which included a set of 4 modules and the final assignment being a full practical behaviour case with a 5000 word write up report. I was already aware and understood the importance of understanding the components of behaviour modification protocols, report and plan design, therefore this contributed to my current knowledge in the area and further developed my skills as an individual working in behaviour.

EP16 Dog Law seminar

I had been recommended this course as it was a well-known and respected experience that covered the key laws around dog ownership as well as updating professionals on legislative and ethical changes within the canine industry. This session was supported with printed powerpoint slides, discussions and a teacher led lecture session.

EP4 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of Animal Welfare in a variety of animals including pets and farm animals. This course provided me with focused discussions and assessments on welfare across a variety of species as well as continuing developing my canine knowledge in particular when discussing welfare assessments.

Professional Qualifications

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. I have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically. When I was selecting CPD opportunities, I chose practical CPD and examinations with the goal to either supplement and broaden my knowledge of a certain area where I feel it may be weaker, or to support and go deeper with what I have already learnt or is relevant to my practice. There are a number of reasons for this which include; personal growth, this being my hobby, a requirement for a former role to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

My experiences as a degree lecturer and MSc student involved many scenarios where critical thinking and evidence gathering was a requirement of the role and running my own business where everyday I read new information, look at its sources, validity, and areas for development in order to support my practice.

Webinars (Safety and Risk Assessment EP2)

I have been studying since 2014 and have attended a significant number of courses and webinars that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

Topic related background reading

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP5 FdSc Applied Equine Behaviour

This course was a 2 year full time in person foundation degree. This course involved many modules, some animal general such as anatomy and physiology, and more equine specific

modules such as introduction to equine behaviour and applied equine behaviour. I chose this course because I have always had a love and passionate interest in animal behaviour, equine specific following early years of equine behavioural rehabilitation and rescue support. I had the goal of wanting to understand the theory behind the process of learning, training, behaviour, welfare, and neurobiological principles specifically.

EP6 BSc (Hons) Equine Science

This course was 1 year top up degree in Equine Science, covering a range of topic including, equine fitness and performance, riding coaching and performance, equine welfare and ethics and advances in complementary therapies. At the time, I was wanting to complete a top-up in applied equine behaviour directly, however that course did not run so I completed this top up instead which provided me with a range of theory knowledge and skills that I may not have developed otherwise. This supported me when deciding to apply onto my Masters programme. This course involved a dissertation with a research proposal, reports, critical reviews, debates, abstract writing, presentations and posters.

EP7 MSc Equine Behaviour, Performance and Training

This masters degree course was a 2 year part time course due to me undertaking my level 5 DET qualification at the same time. This course involved a masters thesis creation, applied animal behaviour science modules as well as specific equine training and performance modules, and research methods sessions. The degree was assessed through large scale reports, pilot studies, essays, small studies and presentations. I chose to undertake this degree as it was one of the sole UK based masters degrees with a focus on equine behaviour specifically at the time, supporting my goal of becoming a CAB from the equine perspective as well as canine.

How is your learning relevant to the Knowledge & Understanding?

The courses discussed above cover all the elements of Law and Ethics standards K31 to K33. This evidence is also supported by my CPD examples which I believe provides the knowledge requirements asked for by the ABTC to be recognised as a CAB. Throughout my reflective statements below, I have provided some case examples to demonstrate the evolution of my knowledge, understanding and critical thinking skills. Where appropriate I have discussed and checked these cases with other qualified industry professionals e.g. other CAB's.

K31 - UK and other relevant legislation that relates to the ownership and use of animals and the role and duties of the Clinical Animal Behaviourist, Veterinary Surgeon, paraprofessionals, owners/handlers and others within it; to include the legal implications and duties associated with the provision of advice and professional liability and client confidentiality.

As CAB and animal industry professionals, it is highly important to always remain up to date with the latest laws and legislation.

Legislation that affects professionals and owners in the UK includes a variety of regional specific laws. This means that, as a professional, I must be aware of all legislation that would affect my practice in the region/s I work within. An example of laws within different UK regions include the Animal Welfare (Electronic Collars) (Wales) Regulations 2010. This

piece of legislation only applies to practitioners and owners in Wales, therefore does not apply to the whole of the UK.

In 2021, as a response to Brexit, the UK Government published the Action Plan for Animal Welfare, due to the potential impact this nationwide change impacts animal welfare and care in the UK and when travelling in and out of the UK. This plan includes Improving Welfare for Pets, Protecting Wild Animals, Protecting Animals Abroad, Improving Welfare for Farmed Animals and The Animal Welfare Sentience Bill.

Other industry regulatory organisations, such as the RCVS, have begun discussions with the ABTC and other animal industry organisations with the purpose of bringing paraprofessionals under the banner of the RCVS as a form of accreditation. This process would potentially include dog trainers, Clinical Animal Behaviourists, and others assessed and accredited with the ABTC.

In 2021, I attended a day CPD course in person at Dig it Dogs in Sandbach discussing Dog Law. This course CPD event discusses up to date knowledge and practical application of canine related legislation for dog professionals and dog owners alike.

Through my studies, I have also developed my knowledge and understanding of a wider array of legislation, particularly learning which are specifically important for certain aspects of the CAB role I aim to be. These legislations that would apply to myself in the CAB role include;

- Veterinary Surgeons Act 1966 (The Veterinary Surgeons Act limits the activities which may be carried out by those who are not registered veterinary surgeons. All activities should be carried out within the constraints of the Veterinary Surgeons Act-What does this mean for behaviourists? Does the VSA (1966) have a clause for behaviourists?)
- Veterinary Medicines Regulations 2013

1. The Veterinary Medicines and Residues (Amendment) (EU Exit) Regulations 2020 - These are specific amendments to the Veterinary Medicines Regulations 2013 In these Regulations “veterinary medicinal product” means—

(a) any substance or combination of substances presented as having properties for treating or preventing disease in animals; or

(b) any substance or combination of substances that may be used in, or administered to, animals with a view either to restoring, correcting or modifying physiological functions by exerting a pharmacological, immunological or metabolic action, or to making a medical diagnosis

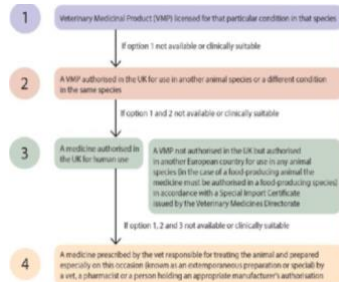
2. 7. Classification, supply and possession of the product

(4) No person may supply an authorised human medicinal product for administration to an animal (other than a product supplied by a veterinary surgeon or in accordance with a written prescription from a veterinary surgeon that includes all the information specified in paragraph 6 of Schedule 3)

Classification of veterinary medicinal products

- 1.—(1) There shall be the following categories of authorised veterinary medicinal products—
- (a) Prescription Only Medicine—Veterinarian (abbreviated to POM-V);
 - (b) Prescription Only Medicine—Veterinarian, Pharmacist, Suitably Qualified Person (abbreviated to POM-VPS);
 - (c) Non-Food Animal—Veterinarian, Pharmacist, Suitably Qualified Person (abbreviated to NFA-VPS);
 - (d) Authorised Veterinary Medicine—General Sales List (abbreviated to AVM-GSL)

- VMD Prescribing Cascade



- Employment law and Health and Safety
- GDPR
- Public Liability and Professional Indemnity

CONTINUATION OF VETERINARY SURGEONS ACT 1966 AND VETERINARY MEDICINES REGULATIONS 2013

Legal constraints on prescription of psychoactive medication

- Prescription-only medications (including psychoactive medication) must be prescribed by a veterinary surgeon (Veterinary Surgeons Act, 1966)
- Vets can only prescribe medication for animals under their care, and after making a clinical assessment of the animal (RCVS Code of Professional Conduct for Veterinary Surgeons)
- Some drugs used to treat behaviour problems in animals are classed as controlled drugs (e.g. Gabapentin - Schedule 3; diazepam and alprazolam – Schedule 4).
- In the UK, the prescribing of individual drugs is restricted by the VMD Prescribing Cascade
- Where a suitable veterinary medicine licensed in the UK for treating a specific condition in that species is available, this should be used.
- Where there is no such drug available, vets are permitted to use their clinical judgement to treat animals under their care in accordance with the prescribing cascade.

Implications of legal constraints for non-vet behaviourists

- Vets and veterinary behaviourists are legally able to diagnose and treat medical conditions and this includes the prescription of medication
- Non-veterinary behaviourists cannot do this, and must be very careful to not step outside their remit
- To avoid this they should:
 - See all behaviour cases on veterinary referral
 - Before the behaviour consultation the vet should have assessed the animal to rule out (as far as possible) or identify and treat., any medical conditions likely to be

causing or influencing the animal's behaviour

- Refer the animal back to the vet for further investigation if the presence of a medical problem is suspected, either during the behavioural consultation or during the course of treatment.

K32 - Employment law, health and safety legislation and the UK-GDPR (United Kingdom General Data Protection Regulation); and their implication for the Clinical Animal Behaviourist, their clients and others.

This standard and information was covered in my Compass Course and being an employer within education. Being responsible for over 60 students (over 18's) and being onsite with under 16's and running my own business, required me to have a good understanding of employment, health and safety and UK-GDPR legislation. I have had to understand employment law, reading contracts of employment, engagement of and with staff, disciplining students when appropriate etc.

For my role as a HE lecturer and Course Manager, part of my role was to create and apply for a new kennel licence for our onsite kennels in order to get staff dogs back in, in time for the start of term and student practicals. This licensing process required me to complete multiple risk assessments for a variety of risk assessments for any scenario when students or staff would be working with the dogs as well as undertaking behaviour assessments of the dogs in our care.

I frequently identify any hazards that could be present in the environment, likelihood of risk, and control measures to mitigate a situation if one arose where individuals were at risk. For example, if a dog bites students during practicals when entering kennels, working outside with the dogs or myself when I enter a home, I would put practical methods in place to mitigate these risks.

These processes to mitigate these types of risk include;

- Consider whether a remote consult or if in-person consultation or meeting was more appropriate depending on the case
- If undertaking an in person at home consultation, suggest the dog was muzzled before I entered the house, that the owners used two leads on the dog and/or the dog was behind a secure door, depending on the severity of the behaviour and the specific dog.

When working with clients face-to-face, I have to risk assess our environment, which could be a home or field etc. I have to identify risks not only to myself and my client/s, but we also have a duty of care to anyone we come into contact with and their animals. In running my own business, I am required to comply with UK GDPR which is tailored by the Data Protection Act 2018. This is relevant not only to the broader business, but when working with my clients and what I would do in my role as a CAB.

Through the consultation process, I take and keep client information they have provided me with as well as payments through bank transfers as well as marketing my services. As through my business, I was required to read the online guides from the Information

Commissioner's Office relating to how I process clients personal information. In conjunction with reading this information, I completed the self-assessment tool and pay the required annual data protection fee.

K33 - The ethical guidelines relating to the use of animals.

Through my work required for the EP1 course , professional industry experience and CPD, I have learnt about various ethical guidelines such as...

Within a variety of written assignments, I referenced and studied books and legislation, such as the Animal Welfare Act 2006, Control of Dogs Act 1992, Dangerous Dogs Act 1991, 1997 and 'Animal Welfare Law in Britain' (Radford).

Throughout my studies for the EP2, EP1 and EP4 courses, I have researched The Royal Society and its research ethics, specifically its statement position on the use of animals in research. Through additional study for these courses and my professional development, I discovered and read the 'Guidelines for the Treatment of Animals in Behavioural Research and Teaching (2020)' and the Animal Research: 'Reporting In Vivo Experiments (ARRIVE) Guidelines'. These documents are also supported by the Royal Society. Overall, it is highly beneficial to read and understand a wide range of animal ethical guidelines, particularly when used in research settings, as well as in domestic environments.

As well as research based animal welfare legislation and ethical guidelines, I have read and I understand the ethical guidelines adopted by the ABTC for working with animals and implementing any form of behaviour change. The ABTC have adopted the 'Least Intrusive Minimally Aversive' (LIMA) and the Humane Hierarchy to be guiding principles.

Briefly provide specific examples of how this learning demonstrates your Knowledge & Understanding

In any business scenario, whether working 1-2-1 with clients, or taking group classes, I frequently discuss key legislation that affects them as dog owners as well as members of the public.

- Dangerous Dogs Act 1991(1997) Section 1 and 3 (Because people do not recognise that the act applies to them not just banned breeds section 1)
- Control of Dogs Act 1992
- Animal Welfare Act 2006 and Five Welfare Needs
- Environmental Protection Act 1990
- Misuse of Drugs Act 1971 covers "Controlled Drugs" (CDs) – those with significant potential for abuse.

As well as animal welfare based legislation and how we as dog professionals, owners and members of the public are affected by a variety of scenarios, it is important to examine my professional standing within the area of veterinary medicine, particularly who is able to diagnose and discuss medical issues. My role is to provide the vet and owner with information regarding what I have witnessed and understood from undertaking history collection through questions and a full consultation. My role as CAB is not to diagnose Or treat medical conditions as well as not prescribing any medication to support a particular

case. In other logs, I highlighted areas that should be told to the vet and the vet then used this information to help their diagnosis.

From a risk management perspective, I complete a written risk assessment for each case and class I undertake. These assessments focus on my own safety, safety of the owners/clients, and safety of other animals etc. below I have provided points that would be highlighted in a specific case example.

For example:

- 4 year old male Cavapoo.
- History of biting strangers when they approach him in public spaces.

The risk assessment for this case included

- Bite history and severity
- Environmental management methods including two key safety measures - Muzzle and owner confidence in communicating safety measures with the dog when out in public, no touching. Using quiet areas of walks at least once a day to allow a dog one walk out of a busy area.
- I always aim to have two points of safety to ensure if one fails (somebody approaches with the goal of touching the dog) there is a safety backup to prevent injury and behaviour presentation (Muzzle). This is particularly important in the early stages of the BMP to allow the owner to still engage in everyday life without having to become a recluse with fears of being out in public.

Currently I do not employ any other individuals within my own business, however I have researched what aspects would be required when taking on an employee from both a legislative, insurance, and financial point of view. This includes the following.

- Being a **Sub-tractor** would make them an employee, rather than self-employed. This would occur as I would become their sole source of income and dictate the hours that they worked. A **Subtractor turned employee** would require their own insurance and demonstrate other sources of income to remain a self-employed sub-contractor which they could by taking their own clients 1-2-1 under their business name for example, as well as working for my company.

An individual counts as an employee if they fit into the following scenarios;

- If they have a set number of hours e.g 9am to 5pm, 5 days a week
- They must work the hours above unless on sick leave, holiday leave, etc
- They are paid hourly, weekly, monthly or an annual rate
- They can be paid overtime
- They are paid whether there is any work or not
- The work to be done is decided by the employer (how, when, what and where)
- They must do the work themselves
- They are provided with tools, equipment, computers, etc by the employer
- Their contract is open ended (after any probation period)
- They have a company email address and business cards
- They have a uniform or use company vans, etc

An individual counts as a subcontractor if they fit into the following scenarios;

- They can choose what hours they work

- They quote for contracts
- They are paid per contract, regardless of how long this takes to complete
- They work for numerous different businesses
- They can make a profit or a loss on a job by job basis
- They make the decisions on the work to be done (how, when, what and where)
- They can hire other people to do all of the work or assist them
- They provide their own tools and equipment or possibly hire them
- Their contract is for a fixed period
- They have an email address and business card for their business only
- The uniform has their name on and not the contractor
- They use their own van

To comply with GDPR requirements, I included a privacy policy for my business which is included on my website and made aware to clients. The information within this policy, and in other locations on my the website includes;

- Summary of business and function
- My details and 'about me'
- What specific information I collect when a client visits our website
- What information I collect when a client contact's me and places a booking
- What information I collect when a client interacts with my website
- How I collect or obtain information about a client from third parties if necessary to do so
- The Disclosure process in my business and website as well as if there could be any additional uses of your information
- How long I and my website retains your information
- How my website and I secure a clients information
- How your information is transferred outside the European Economic Area
- What the clients rights are in relation to their information
- The clients right to object to the processing of their information for particular specific purposes
- How I and my website handles and protects sensitive personal information

How did this Knowledge & Understanding change or improve your practice? Please ensure you provide examples/detail to support your answers.

Since I began studying in 2014 in the area of equine and canine behaviour and working in the field, my aim is to always work to ethical guidelines with the animals I work with, the ABTC code, LIMA, UK Law etc. My other main aim is to operate as an ethical and legitimate canine and equine training and behaviour business. I have adjusted my study aims and goals to align to the needs and regulations of the industry. One main goal for the development of my practice was to approach working with animals and their clients using an overall holistic approach. This meant examining all aspects of the animals' needs and lifestyle to create support mechanisms that promote a high level quality of life for both aspects of the dyads.

Examples of where I developed my practice in relation to law and ethics includes.

- Tailoring risk assessments as health and safety legislation changes.
- Background reading into legislation, health and safety and ethics guidelines every few months.
- Review media based cases that are linked to legislation e.g. dangerous dogs act and reviewing how the justice system responds to each scenario from a legislation, welfare, and safety perspective e.g. Dangerous Dogs Act 1991 (Amended 1997).
- Attended courses to keep my Dog and Equine Welfare and Management Law updated.
- Attended events such as Clinical behaviour webinars, dog and horse separately (APBC, Horse Trust and FABC) with species specific professionals focusing on how legislation plays a role in cases e.g. The Veterinary Surgeons Act (1966).
- Always reviewing the Veterinary Surgeons Act 1966 when reviewing psychopharmacology in a given case and any updated research its use relating to any specific behavioural disorder.
- If I work on or collaborate on a case involving a deemed dangerous dog or one that may require psychopharmacological support, making sure I discuss the legislation aspect in that I am making the right decisions from a law and ethics perspective and not crossing over professional boundaries.

APEL Reflective Accounts Form (for CAB roles)

Please use this form to record written reflective accounts on all learning and training that you are submitting for APEL and how it relates to the Knowledge & Understanding (e.g. Animal Health and Welfare) sections of the standards. This is set out in the APEL Guidelines, as evidence types A, B, C, and D.

Please be aware that specific examples - and detail - in response to the questions below will allow you to demonstrate your knowledge and understanding much more clearly for Assessors than generic statements.

Use one form for each Knowledge & Understanding section, making sure you do not include any information that might identify a specific client, service user, colleague or other individuals.

Name: Candidate A

Knowledge section/ Knowledge & Understanding number(s): Section 7 Critical Analysis and Research Elements 34-36

What was the nature of the learning?

1. **Education Provider 1 (EP1) Level 5** - This is an ABTC recognised distance learning course, tutor supported.
2. **Education Provider 2 (EP2) Level 5** - This is an independent behaviourist course and qualification, incorporating distance learning and tutor support through email when required as well as webinars to support learning.
3. **Professional qualifications, accreditations, CPD and experience (E 9)**- I have been studying since 2014 and have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically.
4. **Education Provider 5 (EP5) FdSc Applied Equine Behaviour** - This was a 2 year full time degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
5. **Education Provider 6 (EP6) BSc (Hons) Equine Science** - This was a 1 year full time top-up degree course in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
6. **Education Provider 7 (EP7) MSc Equine Behaviour, Performance and Training** – This was a 2 year part time degree course (due to completing me level 5 DET at the same time) in person involving a mix of assignment types such as reports, presentations, posters, modification plans, and essays.
7. **Webinars (Morag Critical Thinking and Scientific Paper Part 1 EP8, Morag Journal Club Part 2 EP8)** - I have been studying since 2014 and have attended a

significant number of courses and webinars along with reading and personal experience that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Morag Heirs webinar on 'Reading and Understanding Scientific Papers'.

- 8. Education Provider 17 (EP17) Critical Thinking Course – 'Introduction to Logic and Critical Thinking Specialisation'** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
- 9. Education Provider 18 (EP18) Writing in the Sciences – Coursera** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
- 10. Topic Related Background Reading** - I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples.
- 11. Education Provider 15 (EP15) Introduction to Psychology Coursera** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.
- 12. Education Provider 4 (EP4) certificate of completion** - This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall.

Why did you choose to undertake this learning?

EP1 Level 5

I started this course to have a UK based Degree level Canine qualification that was recognised by the ABTC and would support my original aim of becoming an CAB. The course covers specific topics such as law and animal welfare, and clinical procedures used within the canine industry. I was already very familiar with these approaches from working with and studying horses in a training and behaviour role as well as working in canine training and behaviour roles and environments throughout my career.

I undertook this course because it provided me with the opportunity to undertake self-study alongside given course resources through distance learning while working full time. For each module and question, I completed a large amount of background and wider research. Although the qualification was aimed at level 5, I feel based on my prior level 7 qualification and experience, I was able to go above and beyond in my research for each module. This includes extensive wider reading and referencing and consideration of its practical application to a variety of case examples and scenarios. The learning undertaken throughout this course encouraged and taught me further how to apply and continue

developing my critical thinking skills and to be aware of my biases, if I had any prior to this course, across different topics. For each module I researched and considered the quality of the studies selected, whether they had been peer reviewed, repeated, etc. and how they contributed to the points I was aiming to develop.

EP2 Level 5

This was a 5 module based distance learning course, and my aim was to get a better understanding of dogs and their needs. As I already had equine qualifications, I wanted to gain a canine behaviour based qualification which included a set of 4 modules and the final assignment being a full practical behaviour case with a 5000 word write up report. I was already aware and understood the importance of understanding the components of behaviour modification protocols, report and plan design, therefore this contributed to my current knowledge in the area and further developed my skills as an individual working in behaviour.

EP4 Course

This course was broken down into modules and the end of module quiz assessments. My aim was to get a better understanding of Animal Welfare in a variety of animals including pets and farm animals. This course provided me with focused discussions and assessments on welfare across a variety of species as well as continuing developing my canine knowledge in particular when discussing welfare assessments.

Professional qualifications, accreditations, CPD and experience –

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. I have attended a significant number of courses, professional exams and accreditations with both dogs and horses specifically. When I was selecting CPD opportunities, I chose practical CPD and examinations with the goal to either supplement and broaden my knowledge of a certain area where I feel it may be weaker, or to support and go deeper with what I have already learnt or is relevant to my practice. There are a number of reasons for this which include; personal growth, this being my hobby, a requirement for a former role to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

My experiences as a degree lecturer and MSc student involved many scenarios where critical thinking and evidence gathering was a requirement of the role and running my own business where everyday I read new information, look at its sources, validity, and areas for development in order to support my practice.

EP5 FdSc Applied Equine Behaviour

This course was a 2 year full time in person foundation degree. This course involved many modules, some animal general such as anatomy and physiology, and more equine specific modules such as introduction to equine behaviour and applied equine behaviour. I chose this course because I have always had a love and passionate interest in animal behaviour, equine specific following early years of equine behavioural rehabilitation and rescue support. I had the goal of wanting to understand the theory behind the process of learning, training, behaviour, welfare, and neurobiological principles specifically.

EP6 BSc (Hons) Equine Science

This course was 1 year top up degree in Equine Science, covering a range of topic including,

equine fitness and performance, riding coaching and performance, equine welfare and ethics and advances in complementary therapies. At the time, I was wanting to complete a top-up in applied equine behaviour directly, however that course did not run so I completed this top up instead which provided me with a range of theory knowledge and skills that I may not have developed otherwise. This supported me when deciding to apply onto my Masters programme. This course involved a dissertation with a research proposal, reports, critical reviews, debates, abstract writing, presentations and posters.

EP7 MSc Equine Behaviour, Performance and Training

This masters degree course was a 2 year part time course due to me undertaking my level 5 DET qualification at the same time. This course involved a masters thesis creation, applied animal behaviour science modules as well as specific equine training and performance modules, and research methods sessions. The degree was assessed through large scale reports, pilot studies, essays, small studies and presentations. I chose to undertake this degree as it was one of the sole UK based masters degrees with a focus on equine behaviour specifically at the time, supporting my goal of becoming a CAB from the equine perspective as well as canine.

Topic Related Background Reading -

I have been studying since 2014 and have undertaken many reading sessions to continue building my understanding of a variety of topics across both academic journals and relevant textbooks. This has supported and built on my knowledge and skills relevant to different sections of the CAB standards. For example, Karen Overall (2013) Clinical Behavioural Medicine for Dogs and Cats. Please see evidence section 10 for further examples. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

Webinars (Morag Critical Thinking and Scientific Paper Part 1 EP8, Morag Journal Club Part 2 EP8)

I have been studying since 2014 and have attended a significant number of courses and webinars that has supported and built on my knowledge and skills relevant to different sections of the CAB standards. There are a number of reasons for this which include; personal growth, it being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB.

EP15 Introduction to Psychology Coursera

This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall. There are a number of reasons why I undertook this course which include; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB. This course provided me with a more in depth understanding of human behaviour and how this could affect their relationship with their dog and their behaviour during the consultation or training process.

EP18 Writing in the Sciences – Coursera

This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall. There are a number of reasons why I undertook this

course which include; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB. This course allowed me to practice and develop my scientific writing and analytic skills, supporting my understanding of report writing and concise critical examination of information.

EP17 Critical Thinking Course – ‘Introduction to Logic and Critical Thinking Specialisation’

This short coursera course was run by staff and completed online. This course involved a mixture of reading, self-study and video sessions. Each module had quizzes that had to be completed to pass the course overall. There are a number of reasons why I undertook this course which include; personal growth, this being my hobby, a requirement for a former role, to support my current dog training and behaviour business, to fill the gaps in my knowledge and to support my goal of becoming a CAB. This course allowed me to practice and develop my scientific analytic skills, supporting my understanding of report writing and concise critical examination of information.

How is your learning relevant to the Knowledge & Understanding?

The courses discussed above cover all the elements of Critical Analysis and Research standards K34 to K36. This evidence is also supported by my CPD examples which I believe provides the knowledge requirements asked for by the ABTC to be recognised as a CAB. Throughout my reflective statements below, I have provided some case examples to demonstrate the evolution of my knowledge, understanding and critical thinking skills. Where appropriate I have discussed and checked these cases with other qualified industry professionals e.g. other CAB's.

K34 - How to critically evaluate the quality of research in terms of the methodology, robustness of data gathered and validity of findings and conclusions, from a range of publications and other sources, in order to judge its suitability as evidence on which to base clinical practice.

I began learning about the process of critical thinking during my degree experiences, from foundation degree, all the way to completion of my masters. When undertaking a degree level qualification, one is introduced to research design as well as critical analysis of current research and academic journals throughout this process. In my FdSc degree, I undertook a professional project focusing on equine cognition and its influence on learning processes, which involved the creation of a 5000 word literature review on the topic and review proposal. Throughout the creation of this literature review, I read a variety of topic relevant studies...

In conjunction with the FdSc programme and literature review project, I completed a BSc Honors Top-Up degree which required completion of a variety of assessment types as well as a 6,300 word dissertation on a topic of my choice. I also undertook original research for my MSc thesis focusing on trainer curiosity and understanding of learning theory application. All these courses were entirely science-based, and we were taught to evaluate the quality of research and encouraged to provide critical feedback for a variety of topics.

The in person, online and distance courses required me to undertake independent research

above and beyond the pass mark for the modules, incorporating commitment and initiative in my professional practical and academic practice.

Using the EP1 course as an example, the course was written for the ABTC standards. Therefore, the study and research I undertook was relevant to the topic and above standard, As well as research to support other modules and content, this independence has also been beneficial when undertaking case study work, such as that undertaken in the EP2 and equine degree course. In case study work for these courses, I demonstrated my understanding, critical thinking skills and application of all the knowledge I had gained throughout the course and my overall educational career.

The research I have conducted through my academic studies has examined not only looking at information that supported my beliefs (confirmation bias), but also those that were in conflict or contradiction with them, which by its nature was much harder. Through literature reviews, this process was incorporated and developed throughout my courses across a variety of topics including canine separation related issues using BMP's, learning theories and their impact on equine cognition, as well as coach and rider psychology research and examination into the influence of trainer curiosity on learning theory knowledge awareness and welfare impacts.

The Coursera Course 'Introduction to Logic and Critical Thinking Specialisation also added my understanding of critical thinking in professional practice as well as in my academic work, developing my knowledge of argument framing and questioning evidence in front of you for the benefit of clarity, reliability and accuracy of information and approaches.

K35 - How to demonstrate understanding of cognitive biases (e.g. availability and confirmation) and their impact on the clinician and clients.

See K34

As well as the above courses I participated in, in my current role I teach students about owner behaviour and the influence of cognitive biases on the relationship they have with their animal as well as the owner clinician relationship and communication scenarios. We discuss case examples and scenarios where cognitive biases and cognitive distortions are present and how to work with these in practice and change them where possible to support owner relationships with their pets moving forward.

Examples of cognitive distortions discussed included thoughts that may be false, irrational, illogical or exaggerated which could include the influence of past experiences of future success or failure, labelling behaviours and individuals, and the use of the term 'should' in perceptions of animal ability and behaviours to perform. This can also be translated to owners as well as the animals we are working with.

In comparison, a cognitive bias involves a '*systematic pattern of deviation from the norm or rationality in judgement*'. Cognitive biases in animal based scenarios can include reading training and behaviour information that only supports yours or one point of view, assuming that because a deemed professional has a large amount of followers on social media that they are an effective or ethical practitioner that will suit you and your dog, and basing your prediction of how your pet will do during a given scenario based on prior experience or

opinion you have of them rather than reviewing the dog in the moment with a given technique or approach.

K36 - How to use appropriate methods for the assessment of the effectiveness of suitably structured treatment regimes.

Through undertaking all the above degree programmes, the EP2, EP1 and webinar courses, the importance of behaviour change in both animals and humans is emphasised and described as a major key to the design, maintenance and review of behaviour modification programmes (BMP's). This process of measuring changes in behaviour involves establishing through history collection and consultation a baseline for behaviours when feasible to do so to compare to behaviours after an intervention is implemented e.g. behaviours observed when the dog is left (prior to leaving, while at home alone, and once the owner returns). The main aspect to consider when deciding how to assess the effectiveness of a plan is not to put the owner in a position of recording behaviours when it would place the animal under undue stress, fear or anxiety just to gain the evidence.

The completed course of varying levels and topics, together with webinar and conference based CPD confirmed to me the many advantages of using video as a way of not only recording information at a baseline, but measuring and recording progress of an animal and their owner throughout the BMP process. This mechanism also allows myself as the practitioner the ability to identify any aspect of the process that requires adjustment for the benefit of both the animal, owner and wider public the pair may interact with. Video evidence can also be highly beneficial when discussing and recording information for veterinarians and other professionals.

Briefly provide specific examples of how this learning demonstrates your Knowledge & Understanding

Introduction

An example of how my learning experiences demonstrates this section's knowledge and understanding standards is a recent article in the Independent, posted on 15th June 2023. The title of this article was 'Dog Bites may be more common on hot and polluted days, study suggests' (<https://www.independent.co.uk/news/science/scientists-dogs-harvard-medical-school-chicago-louisville-b2358392.html>). This study suggested that 'Dogs may be more likely to bite people on hotter, sunnier days, and when air pollution levels are higher'. According to this study, the likelihood of dog bites occurring in these conditions increases by up to 11% compared to other scenarios. Other research this studies approach and context was based on includes the following.

- Previous human based research suggests humans commit more violent crimes when temperatures rise, with hotter weather and higher levels of air pollution also linked to increased aggression in humans, Rhesus monkeys, rats, and mice.
- Scientists wanted to see if dog aggression against humans also followed this trend. Writing in the Scientific Reports journal, the researchers say: "We conclude that dogs, or the interactions between humans and dogs, are more hostile on hot, sunny, and smoggy days, indicating that the societal burden of extreme heat and air pollution also includes the costs of animal aggression."

Additional findings from this study include the following;

- Dog bite incidence increased by 11% on days with higher UV levels, by 4% on days with higher temperatures, and by 3% on days with increased levels of ozone.
- In contrast, dog bite incidence slightly decreased (by 1%) on days with higher levels of rainfall.
- No changes in dog bite incidence on days with higher levels of fine particulate matter (PM2.5 – an air pollutant).
- The authors of the study caution that the dog bite records did not include demographic information about other factors that can affect an individual dog's risk of biting, such as dog breed, sex, or whether the dog had been neutered or spayed.
- There was no information recorded about prior interactions between the dog and the bite victim, including whether the person was familiar with the dog or not.
- Further research is needed to confirm and explore the relationship between aggression in dogs and higher temperatures and levels of air pollution. This knowledge could help create education methods focusing on times of day and temperature limits as a way of preventing harmful incidents in conjunction with examination of body language and other factors influencing the frequency and presentation of dog bite incidents.

The paper was published in Nature journal and authored by Dey et al. (2023).

It is my belief or what could be considered as a bias as well as through my experience, that identifying all factors that could lead to potential bite incidents should be investigated. However, focus should remain on human behaviour and knowledge on body language and behaviour of the dog, as well as human physical interaction with the dog as methods to help prevent bite incidents occurring. Therefore, the headline of this article was of great interest to me (and my potential bias), highlighting other potential causes of bite incident increase that may could more focus on the general process of owner education of canine behaviour. For example, I have worked with owners that have dogs with a bite history, both smaller and larger. Through this experience, I have observed owners explain the reasoning for the dog's biting incident with a variety of environmental factors, but little focus as well on behaviour, emotional states, and their role through their interaction with the dog that could have led to this incident. As I have had this experience, my bias has led me towards focusing more holistically on the whole picture and overall education, however it is very important still to examine any potential factors that could influence harmful or injury inducing scenarios in order to add this to owner education and discussion sessions. This paper was a very interesting perspective to learn about and link to my prior experience.

The above points have been reinforced through additional anecdotal evidence from those in the industry and my own experience, where I have observed similar discussions and views presented on owner education and behaviour to prevent biting incidents. This has made me more aware of my own biases and how to avoid developing opinions based on pure social media discussions rather than research and time taken to analyse the evidence. This could be a demonstration of how to be aware of availability bias development and how to avoid it where possible. This type of bias could also impact the specific information I take from a source and how it is translated in my own knowledge and practice.

As this topic has been highlighted in the UK media more in the last year due to an increase of dog bites and maulings to children, I decided to explore this topic further to understand how other studies and authors have explored this concept further in relation to its impact on both the canine industry, pet and non-pet owners. This has included reading other news stories to examine the context behind the bite incidents and discussing these with other professionals as well as reading research in the topic area, focusing on methods used to educate and prevent canine bite incidents worldwide, linking to animal welfare legislation such as the Dangerous Dogs Act 1991, amended 1997.

As well as this study, I consistently update my knowledge to manage any biases I hold when examining research. This process can be aided through examining methods that include standardised validated processes and questionnaires to support my continued professional practice and research. Reviewing already standardised approaches means I am continuing to incorporate evidence-based approaches into my understanding of animal behaviour and am able to implement these techniques into my own tailored practice. This includes examples such as.

- Dog Personality Questionnaire (Jones 2009)
- Canine Cognitive Dysfunction Rating Scale (Salvin 2010)
- Dog Impulsivity Assessment Scale (Wright 2011)
- Canine Health and Quality of Life Survey (Lavan 2013)
- Dog Obesity Risk Assessment (Raffan 2015)
- Canine Frustration Questionnaire (& Scoring)
- CompAct Form
- DIAS Scale and Scoring (Wright et al.)
- Dog Impulsivity Assessment Scale
- Lincoln Canine Anxiety Scale
- Lincoln Sound Sensitivity Scale
- PANAS Scale and Calculation Form
- Positive and Negative Activation Scale
- The Lincoln Canine Anxiety Scale

There are limitations with any form of questionnaire. The authors of this study, in conjunction with others in the wider scientific community, understand that questionnaires can be susceptible to biases, including the influence of different demographics and contexts surrounding dog bite incidents, including owner behaviour and public perception. Therefore, it is important to keep this in mind when analysing questionnaire study results as well as when creating questionnaires for research distribution in order to avoid leading questions and phrasing that could influence the results towards an author's perceived point of view. It is also beneficial to be aware of the potential cognitive biases and distortions that I as a clinical could have that could influence an owner and their behaviour moving through as case and afterwards. Therefore, I always promote and encourage myself and other professionals to undertake regular reflection into their practice and perceptions in order to remove or simply identify any biases or distortions they may have and review how they may have developed. In turn, this could help supporting owners in identifying and potentially changing any biases or distortions they may have or experience for the benefit of supporting

themselves and their animal moving forward.

Following the reading of this study and article, I spent time thinking and percolating on the new information and relating this to other research and knowledge in the topic area of dog bite aetiology and understanding. The study was mostly comfortable to read through, however it was helpful to see how a news article broke down the key themes and pulled them out of the paper to bring it to the everyday dog owner and member of the public. This also provided me with further understanding of communication methods for research and scientific principles to a wide range of different demographics, further developing my skill and understanding in translating research into a more applicable practical example.

When focusing on the assessment of a particular programme, I complete this task in every case I work for different reasons. 1 – to assure I am using the most effective methods for the individual, and 2 – to review and make changes in a plan if either another method or technique is more appropriate or if the owner and or animal is struggling. The review process can include different processes such as the following;

- At the start of a plan, recording baseline behaviours before deciding on and discussing intervention protocols.
- Measuring 'correct' repetitions of a behaviour while a plan is in place. This could be through a written diary, images or videos when appropriate to do so.
- While undertaking follow up discussions with clients, I may use questionnaires provided to an owner that are given before and after a plan has been implanted to compare the impact of the process on the animals and owners behaviour and perceptions.

It is extremely important to emphasise and be clear in communication regarding the effectiveness of a modification programme. If I had an extended period of time to make individual changes to a plan gradually, that would be ideal, however in most practical settings with clients, this may not always be feasible. The reason being that the longer a plan extends for the more money and time the owner would need to put into the plan and this may not be feasible from what they originally agreed to as well as causing the owner potential frustration with small changes. Therefore, it is more beneficial to make multiple changes to a plan and scenario at one time as much as it is feasible and safe to do so, for example making environmental and management changes as well as incorporating additional enrichment and modification protocols. The main aspect to be aware of in this scenario is to avoid flooding or overloading the owner with too much information at one time.

EXAMPLE 1 – CANINE

An example of demonstrating the above in a case could include a dog who is constantly running and chasing bunnies when out of the house or through a window.

Male Neutered Jack Russel 4 years old

Typically, very social towards people and dogs.

The owners of this dog had temporarily moved into a new accommodation while their house was being renovated. This new flat on the ground floor of the building had a large shared garden which their kitchen faced out onto as well as facing a main road at the front of the

house. While here, he began to chase rabbits and other small animals running through the garden whenever he was out to the toilet. He also began to bark at them in the house as well as the odd person walking down the main road. As his barking at people was less frequent, he was more easily positively interrupted from this behaviour. However, it was not as effective when trying to avoid the dog chasing animals when outside.

At the start of the process, I asked the owners to record a diary of events when the dog presented the behaviours. This occurred for the first 5 day week. This allowed us to have a baseline of a working week before we started our more interactive sessions. Within these recordings, I also asked them to note down the environment on these days, any changes including weather, different vehicles, temperature, house changes, routine changes as well as the actual behaviour presentations themselves. With the behaviour presentations e.g. chasing and barking, I asked the owners to record how long they occurred when possible before the dog stopped presenting them. Using a 5 day working week allowed me to have a fuller perspective on the timings and scenarios when the behaviours occurred, which led me to observe any patterns or outliers of behaviour before a differential diagnosis was undertaken. In this particular case, there were patterns observed in terms of timings when the behaviours were presented. It was clear that there key times of the day when the behaviours were more present (the dog only got one walk later on in the evening and taken out in the garden in the morning for a brief toilet break, and the dogs presented these behaviours at lunch when the owners returned from work to check on the dog).

For this case, together with the owners, we used a variety of environmental management methods and enrichment to support the dog in being able to express their natural behaviours which are highly rewarding but without causing stress to other animals or risking the health and safety of both dog and owners. Some of these methods included the following steps.

- Keep toileting after the dog and owner get up in the morning
- Take the dog for at least a 15 minute walk around the area, whether on roads to sniff or through local parks or woods.
- Feed breakfast e.g. scatter feeding or snuffle mat
- Toilet break before the owner leaves
- Return at lunchtime, into the garden for toilet break and undertake some enrichment games such as retrieves, tuggy, and end with a licki mat.
- Evening walk once owner returns from work at least 30 minutes.

After adding these schedule changes and enrichment opportunities, I asked the owners to continue recording the behaviour presentations and environments, just like before the intervention. After 3 days of this routine, the chasing and barking began to significantly decrease, and the dog showed a greater amount of relaxation when outside and in the house. Small animals still caused a small reaction but the intense chasing decreased and the owner was able to regain the dog's focus much quicker.

EXAMPLE 2 – EQUINE

In an equine scenario, the following case provides an example of the above.

7 year old Neutered Male Irish Sports Horse.

Rehomed from owner who felt they could not cope with barging out of the stable and head bashing.

In this case, the new owners kept an up to date behaviour sheet, recording in written descriptions and videos when feasible and appropriate to record the horse without causing undue stress. These owners had been recording this for a week before they had contacted me therefore, I decided to ask them to record for one more full week, to then compare two baseline weeks of the behaviour before adding in any form of intervention. The owners continued the recording process throughout the plan, sending me written and video updates, demonstrating both days when the behaviours were presented, as well as videos of behaviour change during intervention. Not only was this beneficial for the owners confidence and motivation during the plan but it also allowed for me to see the progress steps, not just when things may have not gone to plan. These written descriptions were sent to me over whatsapp every 3-4 days as an overview of the experience, and videos of progress sent daily to me, and each were between 5- 60 seconds long.

The owners in this case provided me with feedback later on in the process, stating they felt keeping a log themselves of the case process and progression provided them with additional confidence in the process they may have had without it. They compared it to taking pictures before, during and after going on a diet and exercising, followed by reviewing the pictures to measure their progress even though no weight has shifted off the scales.

French Bulldog

18 month old female neutered.

I have included a demonstration of my understanding of how medical issues impact on behaviour and how to manage this within a plan. An example of this in practice was a young French bulldog who presented with issues when interacting with dogs and a lack of house training. As well as behavioural interventions for dog-to-dog interactions, this dog was undergoing treatment for skin issues that the vet was in the process of diagnosing. The dog was scratching their body and appeared more irritated when wearing a harness, touching her armpit areas. This health condition had originally been managed with steroids and then moved onto topical non-steroidal cream. To get the full information regarding the dog's medical history, I discussed this further with the vet and they decided based on her current health status to move her from steroid tablets, to non-steroidal topical cream for the specific areas of irritation. Following this change, the dog's interactions with dogs gradually became less 'intense' and her demonstrating slower greetings with other dogs, incorporating more breakaways and interacting with the foster dad, rather than begin to lunge and bark at the dog. This process was measured very gradually over a method of 3 months, not all at once. These changes were reported and supported with videos sent to me during this time.

Within this case, due to her skin irritations, the vet was currently investigating the potential cause of these issues to be allergy driven. The vets suggested a change of food as it was suggested her previous diet may have impacted the skin irritation she experienced. Diet changes may have an impact on canine behaviour. The above Frenchie was put on a raw turkey based diet with little treats while the vet was undertaking ongoing allergy based investigations. The owners reported that the dog was generally more 'relaxed' at home and took more time to sniff while on walks. In this plan, I also suggested different feed dispersal methods for the owners to use to provide the dog with enrichment during feed time as a

method for mental stimulation provision. Although this diet change was not at first behaviour driven, it seemed to be beneficial for this particular dog in more ways than just a medical perspective.

In the above case examples, the different clients presented with different attitudes and responses to recording data before and during the intervention. Therefore, in order to monitor ongoing progress from a baseline, I set up whatsapp chats with each owner and completed check ups and reviews regularly to monitor progress and maintain owner confidence, motivation, plan engagement and compliance with the process (depending on owner ranging from every couple of days to once a week).

How did this Knowledge & Understanding change or improve your practice? Please ensure you provide examples/detail to support your answers.

My approach to research and business development has developed over the years since I started working with and studying dogs and horses. I consistently update my practice, reading the update to date research in the different topic areas as it becomes available.

Some additional changes I have made to my practice include.

1. I made another practice change a couple of years ago, and have been developing my knowledge in the area ever since to make sure I am providing owners with the right information and using the most effective tools in my practice. This change was avoiding the use of large labels for animal behaviour scenarios e.g. using the word aggressive as a description of a dog or horse, when the underlying aetiology of the behaviour is not examined or considered. Using video evidence, images and more detailed descriptions allow for more reliable explanations and analysis of behaviour as well as supporting professional and paraprofessional relationship development and communication. This process can also aid in reducing the likelihood of stereotyping particular dogs and horses, with common examples in certain breeds. This also aids in removing additional bias from my own practice and can support owners developing the tools to remove this bias from their own vocabulary and relationship with their own and other animals.
2. I still incorporate a variety of examples, lamens terms and analogies with owners as it has shown to still be an effective way to develop owner compliance, trust, engagement and motivation during the timer period of a case or class. Owners have stated these approaches have been beneficial for their understanding and knowledge absorption, which they then have been able to translate into their relationship with their animal.
3. When asked something I am not aware of or have not heard before, I always aim to not take the information at face value, and go to find evidence to support the claim or statement. Sometimes if it was an owner who mentioned or asked about it, I would take the evidence back to them in the next session or send it to them digitally which has resulted in very interesting and open-minded discussions which seem to help develop owner engagement with me and the process even more. For example, I have had an owner ask about whether adding more protein in a diet would be better

for their dog. Following this question, I said to the owner I would go away and compile some research to support views on the topic. I compiled some research after our meeting, brought them to the next meeting and we discussed the outcomes. I also discussed this with another provisional CAB to measure their views and evidence in the subject. This approach made the owner feel more comfortable and trusted me more as they realised I am only human as well.

4. It was my MSc Course Manager and Thesis supervisor that first introduced me to the phrase being an 'open-minded critique'. Being open to new information and receiving it effectively from others, then take your time to evaluate and analyse it to then present your thoughts on the subject in a conducive and professional manner. I really resonated with this phrase and ever since, my ongoing professional goal is to remain and promote being an 'open minded, evidence based practitioner and critique'. I discuss this with my students and clients and suggest ways to develop this in themselves if they so wish.
5. I began to suggest to owners last year to record videos and 'data' from the time of their first contact with me and throughout the case process to provide a baseline of the behaviours and issue (when appropriate of course for the animal), and allow us all to review progress throughout the case and encourage continuous communication with me throughout the BMP or training period. This can include video recordings or messages, voice notes, images, or written descriptions of incidents we can log throughout that can be relevant to the situation.
6. I make sure not to change methods or techniques just because one may be coming popular through social media or the specific industry. A lot of techniques are similar to each other and this has made me practise critical analysis of each I encounter and decide whether it would be beneficial or a hindrance to my practice or a specific case. Through my degrees and continuous CPD, I consciously developed the skill of reviewing each case thoroughly and not taking any research or evidence from face value and being able to create a log of evidence within a reasonable time period of the case before I decide on any approaches. The only difference with this process is that in certain cases, I have to make quick decisions for the health and safety of all involved. Therefore, I refer to my current practised methods and do not rely on anything new until I have had time to examine it further, particularly in a behaviour case.

A. Module descriptors and related certificates showing you have completed relevant formal assessed learning. B. Descriptors and related certificates showing you have attended non assessed courses or events. For example, these may be workplace-based training, informal courses, webinars. C. Self-directed learning, which may include reading you have done, leaflets or articles you have written, volunteer activities, life experiences, self-instruction, family responses and hobbies. D. Evidence of experience of the role, either through observation or participation in aspects of the role												
Docu ment name	Descriptor	K & U section number	Type of Evidence									
E 1	Education Provider 5 FdSc Applied Equine Behaviour	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,34,35	A									
E 2	Education Provider 1 (Canine)	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,33,35,36	A									
E 3	Education Provider 4 Syllabus	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,34,35	A									
E 4	Education Provider 6 BSc (Hons) Equine Science	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,17,18,19,20,21,22,23,24,25,26,27,28,29,30,34,35	A									
E 5	Professional qualifications, accreditations, CPD and experience (British Horse Society Progressive Test Certificates (Equivalent to Stage 1), Education Provider 2 Accredited Training Instructor Membership, EP2 Accredited Behaviourist) <table><tr><td>Title of presentation</td><td>Event / audience</td><td>date</td></tr><tr><td>Coach and Rider Perceptions of Autonomy Supportive Coaching Behaviours</td><td>UK Equine Student Conference</td><td>July 2020 (Online)</td></tr><tr><td>The impact of trainer curiosity on equine training</td><td>British Society of Animal Science</td><td>12th April 2022</td></tr></table>	Title of presentation	Event / audience	date	Coach and Rider Perceptions of Autonomy Supportive Coaching Behaviours	UK Equine Student Conference	July 2020 (Online)	The impact of trainer curiosity on equine training	British Society of Animal Science	12 th April 2022	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36	ABCD
Title of presentation	Event / audience	date										
Coach and Rider Perceptions of Autonomy Supportive Coaching Behaviours	UK Equine Student Conference	July 2020 (Online)										
The impact of trainer curiosity on equine training	British Society of Animal Science	12 th April 2022										

	method choice, learning theory awareness, and equine welfare	Conference 2022			
E 6	Education Provider 17 Critical Thinking Course – ‘Introduction to Logic and Critical Thinking Specialisation’			34, 35	A
E 7	Education Provider 7 MSc Equine Behaviour, Performance and Training			1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,34,35,36	A
E 8	Animal and Human Psychology Based Diplomas (Level 3 Diploma in Pet Psychology, Level 3 Diploma in Sport Psychology, Level 3 Diploma in Equine Psychology, Level 3 Diploma in Canine Psychology)			1,2,3,4,5,9,10	A
E 9	Education Provider 14 Level 5 Diploma in Education and Training			23,24,25,26,30	A
E 10	Topic Related Background Reading			1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36	BCD
E 11	Webinars (EP8, FABC, APDT, EP2, Adolescent Dog Courses/Webinars)			1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35	BCD
E 12	Education Provider 15 Introduction to Psychology – Coursera			23,24,25,26,27,28,35	A
E 13	Education Provider 18 Writing in the Sciences – Coursera			34,35	A
E 14	Education Provider 2 Documents (Modules 1-5)			2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20,21,22,23,24,25,26,27,28,29,30,32,36	A
E 15	Education Provider 11 Understanding Canine Care and Behaviour			9	A
E 16	Education Provider 10 Advanced Canine Behaviour Diploma			3,9	A
E 17	Education Provider 12 Dog Emotion and Cognition Break down of Modules Certificate			12	A
E 18	Education Provider 16 Dog Law			31	ABCD
E 19	Education Provider 3 - Coursera			1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,17,18,19,20,21,22,23,24,25,26,27,28,29,30.	A
E 20	Education Provider 13 Assistant Level 3 Diploma			15	A
E 21	Canine First Aid Day Course			13-20	

Name of Applicant: **Candidate A**

Please refer to the ABTC Guidelines and the ABTC standards prior to completing this form.

Please refer also to the Reflective Accounts Form – one form for each section of Knowledge and Understanding

Overview: ABTC Standard - Clinical Animal Behaviourist (CAB)

This Standard relates to the clinical application of the science of animal behaviour, and the modification of the behaviour of animals that are demonstrating all types of undesirable, inappropriate, problematic or dangerous behaviour, including those with a potential link to pathologies that require diagnosis in collaboration with a veterinary surgeon.

This Standard involves understanding how to evaluate, prevent or address inappropriate or problematic behaviours within individual animals, through the development of suitable environments and management/treatment regimes that are likely to be effective, based on best practice and scientific evidence. These may be for training rehabilitation or prevention purposes, when caring for the animal or when assisting and advising another person or organisation on undesirable behaviour in their animal.

This standard is suitable for those working in the animal care sector, with responsibility for planning and managing humane approaches to the addressing of inappropriate behaviour of animals, and who have an extensive understanding of clinical animal behaviour and the related scientific/clinical literature.

The Veterinary Surgeons Act limits the activities which may be carried out by those who are not registered veterinary surgeons. All activities should be carried out within the constraints of the Veterinary Surgeons Act.

In accordance with the ABTC Code of Professional Conduct, all individual practitioners are required to work within this ABTC Standard and their professional competence. All cases that are or develop beyond the scope of this ABTC Standard should be referred on responsibly (see Code of Professional Conduct section 1.2).

All practitioners should be familiar with the ABTC Standard for their role and that of all other ABTC roles, so that they understand the differences between the roles and refer accordingly.

Knowledge and Understanding	Type of Evidence Submitted* (including Source/Provider if appropriate)	Type of Learning*	Level of Learning* (if known) e.g. 3, 4, 5, 6 or 7	Date(s)	Reflective Accounts Form No* (one per K & U section)
Animal Behaviour					
K1: The ethology of vertebrate animals, including perceptual abilities, maintenance and social behaviours and communication, their function and their motivational basis in the most commonly kept domestic species.	Education Provider 1 (EP1) Level 5 (E2)	A	3-7	Ongoing	RA 1
	Education Provider 2 (EP2) Level 5 (E5, E14)	A		2022	
	Education Provider 3 (EP4) Certificate of completion (E 19)	A		Ongoing	
	Education Provider 4 (EP4) certificate of completion (E3)	A		Ongoing	
	EP2 Professional qualifications, accreditations, CPD and experience (E 5)	A		2019-2022	
	Education Provider 5 (EP5) Applied Equine Behaviour FdSc (E1)	A		2018	
	Education Provider 6 (EP6) BSc (Hons) Equine Science (E4)	A		2019	
	Education Provider 7 (EP7) MSc Equine Behaviour (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	

Record of evidence mapping Candidate A's knowledge and understanding for the ABTC standard for Clinical Animal Behaviourist July 2022
Candidate A

	<p>Animal and Human Psychology Based Diplomas in canine psych, equine psych, pet psych and sports psych (E8)</p> <p>Webinars (Canine Adolescence EP2, Breed & PMP EP2, Canine Frustration Education Provider 8, Adolescence Mutt Professor, Canine Origins The Wolf In Your Dog – Pets on Film, Genetics of Behaviour Education Provider 9 (E11))</p>	<p>A</p> <p>B</p>		<p>2018 canine, equine and pet and 2023 sport</p> <p>Ongoing</p>	
<p>K2: How to recognise, evaluate and report on the behavioural states of the most commonly kept domestic animals and those that most commonly contribute to the caseload of a Clinical Animal Behaviourist, to include signals indicative of key behavioural states such as fear, nervousness, aggression, ill-health, threat-reduction, play and relaxation.</p>	<p>EP1 Level 5 (E2)</p> <p>EP2 Level 5 (E5, E14)</p> <p>EP3 Course Curriculum (E19)</p> <p>EP4 certificate of completion (E3)</p> <p>EP2 Professional qualifications, accreditations, CPD and experience (E5)</p> <p>EP5 FdSc Applied Equine Behaviour (E1)</p> <p>EP6 BSc (Hons) Equine Science (E4)</p> <p>EP7 MSc Equine Behaviour, Performance and Training (E7)</p>	<p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p>	3-7	<p>Ongoing</p> <p>2022</p> <p>Ongoing</p> <p>Ongoing</p> <p>2019 - 2022</p> <p>2018</p> <p>2019</p> <p>2021</p> <p>Ongoing</p>	RA 1

	<p>Topic Related Background Reading (E10)</p> <p>Animal and Human Psychology Based Diplomas in canine psych, equine psych, pet psych and sports psych (E8)</p> <p>Webinars (Canine Adolescence EP2, Breed & PMP EP2, Canine Frustration EP8, Adolescence Mutt Professor, Canine Origins The Wolf In Your Dog – Pets on Film, Genetics of Behaviour EP9) (E11)</p>	<p>C</p> <p>A</p> <p>B</p>		<p>2018 canine, equine and pet and 2023 sport</p> <p>Ongoing</p>	
K3: Behavioural ontogeny; to include sensitive periods, socialisation and attachment theory.	<p>EP1 Level 5 (E2)</p> <p>EP2 Level 5 (E5, E14)</p> <p>EP3 Course Curriculum (E19)</p> <p>EP4 -certificate of completion (E3)</p> <p>EP2 Professional qualifications, accreditations, CPD and experience (E5)</p> <p>EP5 FdSc Applied Equine Behaviour (E1)</p> <p>EP6 BSc (Hons) Equine Science (E4)</p> <p>EP7 MSc Equine Behaviour, Performance and Training (E7)</p>	<p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p>	3-7	<p>Ongoing</p> <p>2022</p> <p>Ongoing</p> <p>Ongoing</p> <p>2019 - 2022</p> <p>2018</p> <p>2019</p> <p>2021</p> <p>Ongoing</p>	RA 1

	<p>Webinars (Canine Adolescence EP2, Breed & PMP EP2, Canine Frustration EP8, Adolescence Mutt Professor, Canine Origins The Wolf In Your Dog – Pets on Film, Genetics of Behaviour EP9) (E11)</p> <p>Animal and Human Psychology Based Diplomas in canine psych, equine psych, pet psych and sports psych (E8)</p> <p>EP10 Level 4 Canine Behaviour (E16)</p> <p>Topic Related Background Reading (E10)</p>	<p>B</p> <p>A</p> <p>A</p> <p>C</p>		<p>2018 canine, equine and pet and 2023 sport</p> <p>Ongoing</p> <p>Ongoing</p>	
K4: The interaction between biological and evolutionary influences and the environment in which an animal is kept, and their roles in the development of behavioural disorders for a range of the most commonly kept domestic animals.	<p>EP1 Level 5 (E2)</p> <p>EP2 Level 5 (E5, E14)</p> <p>EP3 Course Curriculum (E19)</p> <p>EP4 certificate of completion (E3)</p> <p>Professional qualifications, accreditations, CPD and experience (E5)</p> <p>EP5 FdSc Applied Equine Behaviour (E1)</p> <p>EP6 BSc (Hons) Equine Science (E4)</p>	<p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p>	3-7	<p>Ongoing</p> <p>2022</p> <p>Ongoing</p> <p>Ongoing</p> <p>2019-2022</p> <p>2018</p> <p>2019</p>	RA 1

	<p>EP7 MSc Equine Behaviour, Performance and Training (E7)</p> <p>Topic Related Background Reading (E10)</p> <p>Animal and Human Psychology Based Diplomas in canine psych, equine psych, pet psych and sports psych (E8)</p> <p>Webinars (Canine Adolescence EP2, Breed & PMP EP2, Canine Frustration EP8, Adolescence Mutt Professor, Canine Origins The Wolf In Your Dog – Pets on Film, Genetics of Behaviour EP9) (E11)</p> <p>EP10 Level 4 Canine Behaviour (E16)</p>	<p>A</p> <p>C</p> <p>A</p> <p>B</p> <p>A</p>		<p>2021</p> <p>Ongoing</p> <p>2018 canine, equine and pet and 2023 sport</p> <p>Ongoing</p> <p>Ongoing</p>	
<p>K5: The process of domestication and its effects on the behaviour of animals and the common interactions between animals and humans and how these can contribute to the development of problematic owner/animal relationship, to include animal abuse, abandonment, animal-hoarding.</p>	<p>EP1 Level 5 (E2)</p> <p>EP2 Level 5 (E5, E14)</p> <p>EP3 Course Curriculum (E19)</p> <p>EP4 certificate of completion (E3)</p> <p>Professional qualifications, accreditations, CPD and experience (E5)</p> <p>EP5 FdSc Applied Equine Behaviour (E1)</p>	<p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p>	3-7	<p>Ongoing</p> <p>2022</p> <p>Ongoing</p> <p>Ongoing</p> <p>2019-2022</p> <p>2018</p>	RA 1

	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	Animal and Human Psychology Based Diplomas in canine psych, equine psych, pet psych and sports psych (E8)	C		2018 canine, equine and pet and 2023 sport	
	Webinars (Canine Adolescence EP2, Breed & PMP EP2, Canine Frustration EP8, Adolescence Mutt Professor, Canine Origins The Wolf In Your Dog – Pets on Film, Genetics of Behaviour EP9) (E11)	B		Ongoing	
Animal Health and Welfare					
K6: The key ethological, psychological and physiological concepts that underpin animal welfare.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 2
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	

Record of evidence mapping Candidate A's knowledge and understanding for the ABTC standard for Clinical Animal Behaviourist July 2022
Candidate A

	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and Behaviour EP2, Service Dogs EP2, Evidence based practice EP8, Animal Welfare Science EP9, Companion animal welfare EP9) (E11)	B		Ongoing	
K7: The physiological and behavioural indicators of welfare in vertebrate animals and their limitations and how to use these practically to assess welfare in the commonly kept domestic species.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 2
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	

	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and Behaviour EP2, Service Dogs EP2, Evidence based practice EP8, Animal Welfare Science EP9, Companion animal welfare EP9) (E11)	B		Ongoing	
K8: Welfare considerations in the management and training of animals and in clinical practice.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 2
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and Behaviour EP2, Service Dogs EP2, Evidence based practice EP8, Animal Welfare Science EP9, Companion animal welfare EP9) (E11)	B		Ongoing	
Animal Learning and Training					

K9: The theory of animal learning to include habituation; sensitisation, classical conditioning, operant conditioning, insight and social learning, animal cognition and the concept of consciousness.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 3
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	EP10 – Level 4 Canine Behaviour (E16)	A		Ongoing	
	Education Provider 11 (EP11) 3110 Understanding Canine Care and Behaviour (E15)	A		2023	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	Animal and Human Psychology Based Diplomas in canine and equine psych, pet psych and sports psych (E8)	A		2018 canine, equine and pet and 2023 sport	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	

	Webinars (Loose lead walking masterclass EP2, Recall EP2, Learning theory explained EP2, Training deaf dogs EP2, Evidence based practice EP8, Training animals for better welfare in zoo EP9) (E11)	B		Ongoing	
K10: The theory underlying learned problem behaviour and training techniques.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP3 Course Curriculum (E19) Professional qualifications, accreditations, CPD and experience (E5) EP5 FdSc Applied Equine Behaviour (E1) EP6 BSc (Hons) Equine Science (E4) EP7 MSc Equine Behaviour, Performance and Training (E7) Topic Related Background Reading (E10) Animal and Human Psychology Based Diplomas in canine and equine psych, pet psych and sports psych (E8) EP4 certificate of completion (E3)	A A A A A A A C A A	3-7 	Ongoing 2022 Ongoing 2019-2022 2018 2019 2021 Ongoing 2018 canine, equine and pet and 2023 sport Ongoing	RA 3

	Webinars (Loose lead walking masterclass EP2, Recall EP2, Learning theory explained EP2, Training deaf dogs EP2, Evidence based practice EP8, Training animals for better welfare in zoo EP9) (E11)	B		Ongoing	
K11: The principles and rationale behind the use of the range of behavioural modification techniques, to include systematic desensitisation, counter-conditioning and the use of clickers.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP3 Course Curriculum (E19) Professional qualifications, accreditations, CPD and experience (E5) EP5 FdSc Applied Equine Behaviour (E1) EP6 BSc (Hons) Equine Science (E4) EP7 MSc Equine Behaviour, Performance and Training (E7) Topic Related Background Reading (E10) EP4 certificate of completion (E3) Webinars (Loose lead walking masterclass EP2, Recall EP2, Learning theory explained EP2, Training deaf dogs EP2, Evidence	A A A A A A A C A B	3-7	Ongoing 2022 Ongoing 2019-2022 2018 2019 2021 Ongoing Ongoing Ongoing	RA 3

	based practice EP8, Training animals for better welfare in zoo EP9) (E11)				
K12: The techniques most appropriate for the treatment of a range of common behavioural disorders and learned problem behaviours, the rationale for their use/application, and the strengths and weaknesses of each.	EP1 Level 5 (E2) EP2 Level 5 (E2, E14) EP3 Course Curriculum (E19) Education Provider 12 (EP12) Dog Emotion and Cognition certificate – (E17) Professional qualifications, accreditations, CPD and experience (E5) EP5 FdSc Applied Equine Behaviour (E1) EP6 BSc (Hons) Equine Science (E4) EP7 MSc Equine Behaviour, Performance and Training (E7) Topic Related Background Reading (E10) EP4 certificate of completion (E3) Webinars (Loose lead walking masterclass EP2, Recall EP2, Learning theory explained EP2, Training deaf dogs EP2, Evidence	A A A A A A A A C A B	3-7	Ongoing 2022 Ongoing Ongoing 2019-2022 2018 2019 2021 Ongoing Ongoing Ongoing	RA 3

	based practice EP8, Training animals for better welfare in zoo EP9) (E11)				
The Interaction between Health and Behaviour					
K13: The functional anatomy and physiology of the vertebrate nervous and endocrine systems and their role in mediating behaviour.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 4
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
				2018	
	EP5 FdSc Applied Equine Behaviour (E1)	A			
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar) (E11)	B		Ongoing	

K14: The concept of neural plasticity and the relevance and influence of environmental and genetic factors in the development of the nervous system.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 4
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar) (E11)	B		Ongoing	
K15: The signs of ill-health and common conditions influencing behaviour and associated veterinary terminology.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 4
	EP2 Level 5 (E5, E14)	A		2022	

Record of evidence mapping Candidate A's knowledge and understanding for the ABTC standard for Clinical Animal Behaviourist July 2022
Candidate A

	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Education Provider 13 (EP13) Veterinary Nursing Assistant Level 3 (E20)	A		Ongoing	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar) (E11)	B		Ongoing	
K16: The interaction between health and behaviour in vertebrate animals.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 4
	EP2 Level 5 (E5, E14)	A		2022	

	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar) (E11)	B		Ongoing	
K17: The behavioural consequences of medical disorders.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 4
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	

	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar) (E11)	B		Ongoing	
K18: The evidence for and against a medical component contributing to competing explanations of a behaviour.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 4
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	

	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar) (E11)	B		Ongoing	
K19: Psychopharmacology and the mode of action of the major classes of drugs used in clinical animal behaviour, their role and correct application, and constraints and contra-indicators to their use.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 4
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	

	<p>EP7 MSc Equine Behaviour, Performance and Training (E7)</p> <p>Topic Related Background Reading (E10)</p> <p>EP4 certificate of completion (E3)</p> <p>Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar) (E11)</p>	<p>A</p> <p>C</p> <p>A</p> <p>B</p>		<p>2021</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	
<p>K20: The ethics of psychopharmacological intervention and legal position of the Clinical Animal Behaviourist, Veterinary Surgeon and others regarding the diagnosis, prescription and use of drugs and provision of advice.</p>	<p>EP1 Level 5 (E2)</p> <p>EP2 Level 5 (E5, E14)</p> <p>EP3 Course Curriculum (E19)</p> <p>Professional qualifications, accreditations, CPD and experience (E5)</p> <p>EP5 FdSc Applied Equine Behaviour (E1)</p> <p>EP6 BSc (Hons) Equine Science (E4)</p> <p>EP7 MSc Equine Behaviour, Performance and Training (E7)</p>	<p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p>	3-7	<p>Ongoing</p> <p>2022</p> <p>Ongoing</p> <p>2019-2022</p> <p>2018</p> <p>2019</p> <p>2021</p>	RA 4

	Topic Related Background Reading	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Pain and behaviour EP2, Canine Brain EP2, Canine Cognitive Dysfunction EP2, Equine Psychopharmacology Part 1 EP8, Equine Psychopharmacology Part 2 EP8, Horse Trust Clinical Behaviours Webinar) (E11)	B		Ongoing	
Clinical Procedures					
K21: The range of common behavioural disorders in animals to include phobias, aggression, stereotypes, anxiety related behaviours, and how to identify and critically evaluate contributing factors.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 5
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	

	Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)	B		Ongoing	
K22: The appropriate application of the principles of ethology and learning theory to the diagnosis and treatment of common problems.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP3 Course Curriculum (E19) Professional qualifications, accreditations, CPD and experience (E5) EP5 FdSc Applied Equine Behaviour (E1) EP6 BSc (Hons) Equine Science (E4)	A A A A A A	3-7	Ongoing 2022 Ongoing 2019-2022 2018 2019	RA 5

	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration APBC, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)	B		Ongoing	
K23: The key principles in human and family psychology, to include attitude theory, processes of inter-personal relationships, grief and bereavement.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 5
	EP2 Level 5 (E5, E14)	A		2022	
	EP3 Course Curriculum (E19)	A		Ongoing	

	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP14 Level 5 Diploma in Education and Training (E9)	A		2021	
	EP15 Introduction to Psychology (E12)	A		Ongoing	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars,	B		Ongoing	

	Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)	A B		Ongoing Ongoing	
K25: The range of effective communication skills, both in the collection of relevant information and provision of advice in face to face or remote consultations and communication via telephone, email, letters and reports with clients and relevant professionals, and how to assess and resolve issues relating to client understanding.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP3 Course Curriculum (E19) Professional qualifications, accreditations, CPD and experience (E5) EP14 Level 5 Diploma in Education and Training (E9)	A A A A A	3-7	Ongoing 2022 Ongoing 2019-2022 2021	RA 5

	EP15 Introduction to Psychology (E12)	A		Ongoing	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Topic Related Background Reading (10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)	B		Ongoing	

K26: The interactions appropriate in professional relationships and how to apply these in practice.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP3 Course Curriculum (E19) Professional qualifications, accreditations, CPD and experience (E5) EP14 Level 5 Diploma in Education and Training (E9) EP15 Introduction to Psychology (E12) EP5 FdSc Applied Equine Behaviour(E1) EP6 BSc (Hons) Equine Science (E4) EP7 MSc Equine Behaviour, Performance and Training(E7) Topic Related Background Reading (E10) EP4 certificate of completion (E3) Webinars (Trainers working with vet teams EP2, Create compliance	A A A A A A A A A C A B	3-7	Ongoing 2022 Ongoing 2019-2022 2021 Ongoing 2018 2019 2021 Ongoing Ongoing Ongoing	RA 5

Record of evidence mapping Candidate A's knowledge and understanding for the ABTC standard for Clinical Animal Behaviourist July 2022
Candidate A

	EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)				
K27: The common professional, ethical or other issues that need to be considered or may arise before, during and after a consultation; and the action that is appropriate to address these, including an appreciation of the value of further referral.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP3 Course Curriculum (E19) Professional qualifications, accreditations, CPD and experience (E5) EP15 Introduction to Psychology (E12) EP5 FdSc Applied Equine Behaviour (E1)	A A A A A A	3-7	Ongoing 2022 Ongoing 2019-2022 Ongoing 2018	RA 5

	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training(E7)	A		2021	
	Topic Related Background Reading(E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)	B		Ongoing	
K28: Methods for gathering and recording information relevant to the diagnosis of a behavioural disorder and how to critically evaluate and appraise it.	EP1 Level 5 (E2)	A	3-7	Ongoing	RA 5
	EP2 Level 5 (E5,E14)	A		2022	

Record of evidence mapping Candidate A's knowledge and understanding for the ABTC standard for Clinical Animal Behaviourist July 2022
Candidate A

	EP3 Course Curriculum (E19)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	EP15 Introduction to Psychology (E12)	A		Ongoing	
	EP5 FdSc Applied Equine Behaviour (E1)	A		2018	
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP7 MSc Equine Behaviour, Performance and Training(E7)	A		2021	
	Topic Related Background Reading(E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8,	B		Ongoing	

Record of evidence mapping Candidate A's knowledge and understanding for the ABTC standard for Clinical Animal Behaviourist July 2022
Candidate A

	Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)				
K29: The construction and delivery of appropriately structured treatment regimes that are likely to be effective for behavioural disorders identified.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP3 Course Curriculum (E19) Professional qualifications, accreditations, CPD and experience (E5) EP5 FdSc Applied Equine Behaviour (E1) EP6 BSc (Hons) Equine Science (E4) EP7 MSc Equine Behaviour, Performance and Training (E7) Topic Related Background Reading (E10) EP4 certificate of completion (E3) Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane	A A A A A A A C A B	3-7	Ongoing 2022 Ongoing 2019-2022 2018 2019 2021 Ongoing Ongoing Ongoing	RA 5

	interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)				
K30: How to identify situations where further action may be necessary, including ways in which compliance with an extended treatment regime may be encouraged.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP3 Course Curriculum (E19) Professional qualifications, accreditations, CPD and experience (E 5) EP14 Level 5 Diploma in Education and Training (E9) EP5 FdSc Applied Equine Behaviour E1) EP6 BSc (Hons) Equine Science (E4) EP7 MSc Equine Behaviour, Performance and Training (E7)	A A A A A A	3-7	Ongoing 2022 Ongoing 2019-2022 2021 2018 2019 2021	RA 5

	<p>Topic Related Background Reading (E10)</p> <p>EP4 certificate of completion (E3)</p> <p>Webinars (Trainers working with vet teams EP2, Create compliance EP2, Owner motivation EP2, Red flags – emotional health EP2, Safety and risk assessments EP2, Frustration EP8, Humane interspecies emotional labour EP8, Equine Psychopharmacology Part 1, Equine Psychopharmacology Part 2, Frustration and Self Regulation Danielle Beck, Separation Spectrum Dogmum mindset, Horse Trust Equine Clinical Behaviour Webinars, Compassion Fatigue EP8, Complaints and Safeguarding EP8, Business and Behaviour EP8, Communication value to client EP9, Take behaviour histories EP9, Psychopharmacology EP9) (E11)</p> <p>EP15 intro to Psychology Course (E12)</p>	<p>C</p> <p>A</p> <p>B</p> <p>A</p>		<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	
Law and Ethics					

K31: UK and other relevant legislation that relates to the ownership and use of animals and the role and duties of the Clinical Animal Behaviourist, Veterinary Surgeon, paraprofessionals, owners/handlers and others within it; to include the legal implications and duties associated with the provision of advice and professional liability and client confidentiality.	EP16 Dog Law Seminar (E18)	A	3-7	2021	RA 6
	EP1 Level 5 (E2)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E 5)	A		2019-2022	
	Topic Related Background Reading (E10)	A		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Safety and Risk Assessment EP2) (E11)	B		Ongoing	
K32: Employment law, health and safety legislation and the UK-GDPR (United Kingdom General Data Protection Regulation); and their implication for the Clinical Animal Behaviourist, their clients and others.	EP2 Level 5 (E5, E14)	A	3-7	2022	RA 6
	EP1 Level 5 (E2)	A		Ongoing	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Safety and Risk Assessment EP2) (E11)	B		Ongoing	
K33: The ethical guidelines relating to the use of animals.	EP2 Level 5 (E5, E14)	A	3-7	2022	RA 6
	EP1 Level 5 (E2)	A		Ongoing	

	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Safety and Risk Assessment EP2) (E11)	B		Ongoing	
Critical Analysis and Research					
K34: How to critically evaluate the quality of research in terms of the methodology, robustness of data gathered and validity of findings and conclusions, from a range of publications and other sources, in order to judge its suitability as evidence on which to base clinical practice.	EP5 FdSc Applied Equine Behaviour (E1)	A	3-7	2018	RA 7
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP1 Level 5 (E2)	A		Ongoing	
	EP17 Critical Thinking Course – ‘Introduction to Logic and Critical Thinking Specialisation’ (E6)	A		Ongoing	
	EP18 Writing in the Sciences (E13)	A		Ongoing	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Professional qualifications, accreditations, CPD and experience (E5)	A		2019-2022	
	Topic Related Background Reading (E10)	C		Ongoing	

	EP4 certificate of completion (E3)	A		Ongoing	
	Webinars (Morag Critical Thinking and Scientific Paper Part 1 EP8, Morag Journal Club Part 2 EP8)(E11)	B		Ongoing	
K35: How to demonstrate understanding of cognitive biases (e.g. availability and confirmation) and their impact on the clinician and clients.	EP5 FdSc Applied Equine Behaviour (E1)	A	3-7	2018	RA 7
	EP6 BSc (Hons) Equine Science (E4)	A		2019	
	EP1 Level 5 (E2)	A		Ongoing	
	EP17 Critical Thinking Course – ‘Introduction to Logic and Critical Thinking Specialisation’ (E6)	A		Ongoing	
	EP15 Introduction to Psychology (E12)	A		Ongoing	
	EP18 Writing in the Sciences (E13)	A		Ongoing	
	EP7 MSc Equine Behaviour, Performance and Training (E7)	A		2021	
	Professional qualifications, accreditations, CPD and experience (E5)	A/C		2019-2022	
	Topic Related Background Reading (E10)	C		Ongoing	
	EP4 certificate of completion (E3)	A		Ongoing	

	Webinars (Morag Critical Thinking and Scientific Paper Part 1 EP8, Morag Journal Club Part 2 EP8; Cognitive Bias EP8) (E11)	B		Ongoing	
K36: How to use appropriate methods for the assessment of the effectiveness of suitably structured treatment regimes.	EP1 Level 5 (E2) EP2 Level 5 (E5, E14) EP7 MSc Equine Behaviour, Performance and Training (E7) Topic Related Background Reading (E10)	A A A C	3-7	Ongoing 2022 2021 Ongoing	RA 7
*Details in the Applicant Guidance Document					