



Training with positive reinforcement



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We are committed to continuously improving our dog training and behaviour practises to maximise the use of rewards and minimise the use of punishment.”

Tim Stafford, Director of Canine Affairs

Introduction

At Guide Dogs, the wellbeing of our dogs is at the heart of everything we do.

We know that guide dogs trained and cared for using positive reinforcement form long-lasting partnerships with people with sight loss, as they are confident, happy and enjoy their work. We also know from experience that not only does positive reinforcement training create wonderful guide dogs, but it's also a reliable, and empowering method for our clients to use too.

Positive reinforcement training has always been important to us at Guide Dogs as we've always trained our dogs using rewards. However, in the past we also used some techniques to punish our dogs for undesirable behaviours or work errors. We now maximise positive reinforcement, use marker training in a standardised way, and no longer use physical punishment.

In this booklet we explain how our training has evolved through decades of practical knowledge and been informed by science-based evidence, the experience of other organisations, and the expectations of society.

We will continue to improve and adapt, always based upon further evidence and insights as they become available.

The way we train and interact with our dogs is based on four guiding principles:



Know

We understand dogs as a species and get to know each of our dogs as an individual, including their needs and preferences.



Manage for success

We manage the environment, our dogs and ourselves to set the stage for success, while also preventing our dogs from practicing unwanted behaviours.



Teach/train

We tailor training for each individual dog, using rewards that motivate them best. We teach our dogs using positive reinforcement.



Partner

We're here to support people with sight loss to live actively, independently, and well. So, we have a commitment to person-centred practice AND dog-centred practice. We always aim to meet the needs of both parties.



What is positive reinforcement training?

Positive reinforcement involves rewarding dogs for behaviour we like to see.

- Positive reinforcement training teaches dogs that good things happen when they make good choices.
- It is a science-based training approach that focuses on rewarding desirable behaviours, so they will be more likely to occur in the future, while also being careful not to reinforce undesirable behaviours.
- Rewards can include food, praise or playing with a toy. All dogs are different, so they find different things rewarding. It's important that we understand each dog and find a reward they really like.
- Positive reinforcement teaches our dogs what we want them to do, rather than punishing behaviours we do not want.
- During training we make things easy for the dog to do the desired behaviour.

What are reinforcement and punishment?

All animal behaviour is driven by consequences.

What happens after a behaviour determines whether that behaviour will increase or decrease in the future. Reinforcement is the process through which a behaviour is increased (or maintained) and punishment is the process by which a behaviour is decreased.

There are four ways that learning through consequences occur, and these underpin all animal learning:

1

Positive reinforcement

Adding a pleasant consequence after a desired behaviour or response from the dog, to make the behaviour more likely to reoccur in the future. For example, giving a food reward after a sit response will increase the likelihood of the dog sitting again.

2

Positive punishment

Adding an unpleasant aversive consequence after an undesirable behaviour or response from the dog, to make the behaviour less likely to reoccur in the future. For example, a short, sharp jerk on the lead (sometimes called a correction) for pulling towards another dog, so the dog is less likely to repeat pulling.

3

Negative reinforcement

Removing something unpleasant as a consequence for a desired behaviour or response from the dog, to make the behaviour more likely to reoccur in the future. For example, putting pressure on the top of the dog's hind quarters and then removing the pressure when they sit, therefore the dog is more likely to sit in future.

4

Negative punishment

Removing something pleasant as a consequence for an undesirable behaviour or response from the dog, to make the behaviour less likely to reoccur in the future. For example, removing eye contact or walking away when the dog jumps up for attention will reduce the likelihood of jumping in the future.

Note:

Reinforcement is used to increase or strengthen future behaviour, whereas **punishment** is used to decrease or weaken future behaviour.

Positive and **negative** don't necessarily mean good or bad, but instead refer to something being added or removed.

A reinforcer is anything that, when presented following a behaviour, causes that behaviour to be more likely to occur again in the future. Reinforcers can be deliberate (such as a food reward) or accidental (not realising that giving attention for jumping up may reinforce the undesired behaviour).



What is marker training and why do animal trainers use it?

Marker training is based on behavioural psychology and relies on marking a desirable behaviour and rewarding it.

Marker training is not a new concept and has been used to train animals since the 1940's. It's commonly used in zoos and aquariums and has even been used to train birds and marine animals to complete complex tasks for the military.

In dog training, desirable behaviour is often marked by using a clicker, a mechanical device that makes a short, distinct 'click' sound which tells the dog exactly when they're doing the right thing. We also use verbal (spoken) markers such as 'Yep!' to mark desirable behaviour. It's like taking a photo of the behaviour you want to see again. The dog learns to associate the marker sound with a reward (usually, but not always, a food reward).

This clear form of communication, combined with positive reinforcement and reducing punishment, is an effective, safe, and humane way to teach any animal any behaviour that they are physically and mentally capable of doing.



How positive reinforcement helps our dogs learn

Positive reinforcement is associated with more successful dog training:

- It's often more effective for learning complex behaviours and is associated with quicker training times, compared to techniques that use aversive methods.
- Behaviours trained through positive reinforcement have been shown to be slow to disappear when the reward is removed, indicating that positively reinforced behaviours are stable and long lasting.
- There's evidence that learning new tasks becomes quicker when the dog has more experience of positive reinforcement training.
- Positive reinforcement training is the best method of quickly and effectively producing novel behaviours in dogs which would be difficult, time consuming or even impossible using alternative training methods.
- A dog's experience of learning through positive reinforcement builds a strong dog-human relationship.

Why we use positive reinforcement

- Positive reinforcement methods are better for our dogs' welfare.
- Dogs trained using positive reinforcement experience more positive emotions, are more optimistic, and are less stressed during training compared to those trained using aversive consequences.
- Dogs trained with positive reinforcement make positive associations with tasks and the environment in which they are trained; for guide dogs this means positive association with guiding, resulting in more confident dogs that enjoy their role.
- Dogs trained using positive reinforcement are more likely to be socially well-adapted and playful including when interacting with strangers.
- Positive reinforcement is associated with fewer behavioural problems, such as incidents of fear, aggression, and undesirable behaviours.
- Positive reinforcement training is suitable for dogs of all ages.
- Positive reinforcement increases engagement with the handler and is better for the human-dog relationship.
- Positive reinforcement meets the expectations of our society and receives public support rather than criticism.

Note:

The UK public show a clear preference for PRT-based dog training over aversive methods. In 2023 a survey of 2000 members of the public found:

- 74% of those who expressed an opinion consider PRT the more ethical approach.
- In relation to Guide Dogs specifically, 91% of those who expressed an opinion "expect the organisation to use reward-based training as a dog training method."
- 71% of those who expressed an opinion expect Guide Dogs to use PRT exclusively and not to use aversive methods.



Important points relating to positive reinforcement

Here are some key points to consider when training with positive reinforcement:

- Positive reinforcement works better when it's not combined with punishment methods. A combination of positive reinforcement and positive punishment (sometimes called balanced training) can decrease the dog's welfare and lessen the efficiency of training.
- The timing of the rewards is critical. A delay in reinforcement can make it harder for the dog to learn as it may not be clear what the reward is being given for.
- Dogs, like humans, prefer different rewards. Working with each dog's preferred rewards can improve learning speed and accuracy.
- Positive reinforcement and marker training can take time to learn to do well, so education and practice is required.
- Positive reinforcement is powerful, so if undesired behaviour is inadvertently rewarded this behaviour can increase.

However, all these points can be addressed with accurate knowledge and proficient training techniques.



Use of positive reinforcement training around the world

Positive reinforcement training is used extensively across assistance dog organisations around the world.

In 2004 the largest guide dog organisation in the USA fully integrated clicker training methods into all aspects of their guide dog training program, reporting increased success rates and performance ratings in their dogs. Today, clicker training and positive reinforcement is commonly used in most guide dog organisations around the world. The majority of Assistance Dogs UK (ADUK) organisations use marker training in their work.

Clicker training is used widely across many other working dog organisations, such as police dogs, explosive detection dogs etc. It is also commonly used in zoos and aquariums to train animals to voluntarily participate for medical examinations and husbandry procedures.

Given that there is growing evidence to support the effectiveness and welfare benefits of positive reinforcement training methods, it's expected that working dog providers use these approaches.

In 2023, the world's two leading organisations for assistance and guide dogs, the International Guide Dog Federation (IGDF) and Assistance Dogs International (ADI), have issued a joint position statement re-affirming their commitment to the ethical training and care of dogs.

Photo credit: Left - ZSL with zookeeper Charli Ellis. Right - ZSL with zookeeper Mark Holden, Anusia Acus and Cassie Coveney.

Why we need to minimise aversives in training

Aversives can be defined as things that are physically or emotionally uncomfortable for the dog to experience.

They are commonly used to achieve learning through positive punishment (aversive added to reduce undesired behaviour) and negative reinforcement (relief from aversive to strengthen desired behaviour). Aversives (punishers) are sometimes referred to as corrections – and these can be physical (such as a jerk on the lead) or verbal (a ‘telling off, stern use of voice or verbal intimidation).

Aversiveness exists on a scale, but mild aversives are less likely to change future behaviour, perhaps just serving to interrupt the behaviour in the moment. To have a lasting effect, stronger aversives are usually needed. However, stronger aversives have greater risks and negative consequences. Also, what is aversive is a very individual matter, and may be specific to the situation. For example, what punishes a specific behaviour in one individual, in one situation may not do the same with another dog or even the same dog in a different context. Use of aversives is becoming less acceptable, with the general public perceiving this as unethical, and there are real risks of losing public support. We have made the decision that applying physical corrections (such as a jerk on the lead or harness) are no longer appropriate methods to use in the training of our dogs. We believe that there is a better way.

At Guide Dogs, we fully embrace the concept of training our dogs using the Least Intrusive, Minimally Aversive (LIMA) principle. This is a requirement of our accreditation with the International Guide Dog Federation which states, **“We advocate for the use of the Least Intrusive and Minimally Aversive (LIMA) training model and encourage all our members to work towards a position where physical punishment is not used in the training of dogs.”**



Questions and answers

1

When was positive reinforcement first used?

Positive reinforcement has been used for the duration of dog training history. However, the first person to use the clicker training method of applying positive reinforcement was Keller Breland in the 1940s. In the years that clicker training has been in use, a wide variety of birds, mammals and reptiles have been successfully trained using the clicker method.

2

Can training with food make the dog beg, scrounge, or become preoccupied with food?

Unless the dog is rewarded for these unwanted food related behaviours, they should not occur. A positive reinforcement trained dog is no more likely to scrounge than dogs trained through other methods.

3

Are food rewards and clickers necessary for the whole of the dogs working life?

Once a behaviour is fully trained, the rewards (and clicker if one is being used) can be reduced or faded out. Many dogs will find social rewards (such as physical and verbal praise) to be rewarding. However, most dogs find food highly rewarding, and so using food throughout their life can certainly be useful to maintain motivation and positive associations with work. Each dog and partnership is different.

4

Will training with food rewards cause the dog to become overweight?

Positive reinforcement training can only make a dog overweight if the handler uses unhealthy food rewards or if the dog's total daily food allowance is not balanced to compensate for the calories consumed when working. We generally use our dogs' daily food allowance as rewards during their training and working life.

5

Does positive reinforcement mean never using punishment?

The LIMA principle encourages us to modify undesirable behaviour without resorting to causing fear, intimidation, or stress. Most undesirable behaviour can be modified using positive reinforcement techniques by focusing on training the dog what we do want them to do and teaching an alternative behaviour. For example, if a dog lunges towards other dogs, teaching them to walk past dogs and rewarding this will reduce the lunging behaviour. There may be occasions when it is necessary to punish (reduce) certain behaviours – we have high expectations for the behaviour of our guide dogs. In most cases, this can be achieved through removing access to desired consequences or using something to interrupt an undesirable or unsafe behaviour in the moment. We may also use a verbal interrupter or punisher, such as a firm/stern tone of voice or the word 'no' but try to avoid this as much as possible. We never use physical punishment such as jerks on the lead or harness when we are teaching our dogs.

6

Does positive reinforcement mean ignoring bad behaviour?

While it may be appropriate to ignore some behaviours, this is rarely an approach that's recommended as it's often not effective and doesn't teach the dog what to do. It can also cause more unwanted behaviour because of the dog feeling frustrated. Instead, we would seek to understand the cause of the unwanted behaviour (our first principle - Know), manage the dog and/or environment to prevent the undesirable behaviour being reinforced (our second principle - Manage) and then teach a more desirable behaviour through positive reinforcement (our third principle - Teach). Lastly, we need to ensure any technique we use is suitable for both the dog and the handler (our fourth principle - Partner).

7

How does positive reinforcement set boundaries and provide effective leadership to the dog?

Our dogs are taught the rules of living in our society through positive reinforcement, then once learnt these are maintained through consistently applying the rules and rewarding with real-life outcomes. Whilst we no longer talk about 'pack leadership' this does not mean that we don't provide the dogs with boundaries. Setting boundaries in this way allows the person to manage the dog through kind, consistent and effective methods.

8 How do dogs trained with positive reinforcement cope with real life situations after training?

Positive reinforcement approaches introduce dogs to potential challenging events and situations e.g., loud noises and intense, complex environments, in a systematic way to build resilience, ability to cope with and work through real world situations, and problem solve. We gradually increase the challenge as the dog becomes more proficient in their work tasks and reduce the number of rewards needed for them to work comfortably in a range of situations.

9 Can positive reinforcement be used by people with sight loss – including people who are totally blind?

We always ensure that our training methods can be transferred to our clients. Learning about positive reinforcement and how to use it is a key element of our teaching during the early stages of creating new partnerships. We work with all our clients, as we do our dogs, as an individual.



Recommended reading

Alexander, M. (2003) **Click For Joy: questions and answers from clicker trainers and their dogs**

Bekoff, M. & Pierce, J. (2019) **Unleashing Your Dog: a field guide for giving your dog the best life possible**

Bekoff, M. (2023) **Dogs Demystified. An A-Z guide to all things canine.**

Bradshaw, J. (2014) **Dog Sense**

Donaldson, J. (2013) **The Culture Clash: A revolutionary new way of understanding the relationship between humans and domestic dogs**

Fisher, G. (2009) **The Thinking Dog, crossover to clicker training**

Merritt, M. (2021) **Minding Dogs: Humans, canine companions, and a new philosophy of cognitive science**

Pryor, K. (2019) **Don't Shoot the Dog! The New Art of Teaching and Training**

Todd, Z. (2020) **Wag: the science of making your dog happy**

Also refer to our Guide Dog Principles
Assistance Dogs International & International Guide Dog Federation – joint position statement on the ethical training and care of guide & assistance dogs





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