



## Reinforcement: The Key to Teaching and Learning

This is a summary of a webinar offered by the Autism Learning Partnership. Follow the link to watch the webinar. <https://asdatlantic.ca/available-resources/>

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Applied behaviour analysis (ABA) is the science of learning. ABA allows us to study and describe the predictable ways behaviour is learned and how it changes it over time. Antecedents, which happen immediately before the behaviour, and consequences, which happen immediately after the behaviour, are two environmental variables that impact behaviours. Reinforcement is one of the well-known consequences and is also one of the most important and widely used principles of ABA.

### Reinforcement

When we say **reinforcement** influences behaviour, we mean that *an object or event is added or removed immediately following a targeted behaviour and increases the likelihood that the behaviour will occur again*. Reinforcement means that when a behaviour is followed by a satisfying consequence, it is more likely to occur again. People will adopt behaviours that allow them to access what they want. When the behaviour is repeated due to reinforcement and continues over time, we say learning has occurred.

While reinforcement is *the process* for influencing behaviour, the **reinforcer** is *the object or event* that is added or removed immediately after a targeted behaviour that increases the likelihood that the behaviour occurs again. There is a limitless variety of things that can act as reinforcers, including attention, praise, hugs, food and drinks, activities, and money and tokens. For something to be considered a reinforcer, two things must occur: it must follow the behaviour and it must cause the behaviour to occur again. What is reinforcing to one person may not be reinforcing for another. In fact, there are things that most people would find disagreeable, such as a reprimand, that could act as a reinforcer for other individuals. Unwanted and challenging behaviour can be the result of reinforcement, even though it was not the intention. Sometimes reinforcement occurs when we do not want it to.

### Naturally Occurring and Planned Reinforcement

A natural reinforcer is one that has a direct relationship to the behaviour and occurs naturally in the environment. Social reinforcers, such as smiles, praise, and attention are some of the most common naturally occurring reinforcers. Other examples include receiving an item after asking for it, feeling a cool breeze after opening a window, eating a warm cookie after baking, and receiving help with a task after asking. The natural consequences of these behaviours become reinforcing and so, the behaviours are repeated.



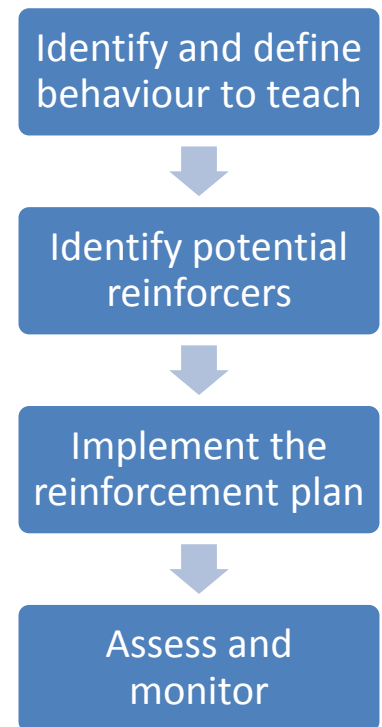
Reinforcing events can also be deliberately arranged to teach a wide variety of new behaviours and skills to anyone. A planned reinforcer, sometimes called a *contrived* reinforcer, is an object or event offered following a targeted behaviour that would not be offered or present in the environment otherwise. Receiving a sticker for a job that is well done is one example of a planned reinforcer. We deliberately arrange reinforcement to influence socially significant behaviours that contribute to an individual's quality of life when naturally occurring reinforcers are not enough to do so.

Because reinforcement applies to all human behaviour, it can be misused, either unintentionally or intentionally. Some people assume that reinforcement is the same as a reward, bribery or even manipulation. A reward is usually something considered to be pleasant that is offered following a specific behaviour, but it does not necessarily affect the likelihood for a behaviour to happen again in the future. Bribery, on the other hand, often results in an individual performing a behaviour that may not be in their best interest, in exchange for a reward that may or may not be provided. Reinforcement is intended to promote learning and strengthen socially significant behaviour that is relevant and helpful to the individual. Using reinforcement is not being manipulative nor being unethical, in fact, it would be unethical not to teach needed behaviour and skills.

## Planning Reinforcement to Teach New Skills

Here are the four steps to follow when using planned reinforcement to teach new behaviour and/or skills.

- 1. Identify and define the behaviour to teach:** When you know what behaviour or skill you want to teach, you need to specify the goal (i.e., what you are working towards) and describe the behaviour or skill in specific terms so that everyone observing can identify when the behaviour occurs and can record information about its occurrence. Recording occurrences helps you know if the behaviour is increasing. The type of information you record about the behaviour will depend on the behaviour itself and how often it occurs. It is also important that you identify what the learner can currently do (i.e., before any teaching happens). You do not want to waste time teaching behaviours or steps of a skill that the learner can already do.
- 2. Identify potential reinforcers:** There are many types of reinforcers. What works to reinforce one person's behaviour, may not reinforce another's; therefore, you need to identify reinforcers that will positively influence your learner's behaviour. To identify reinforcers, you can use an interview or a checklist, you can observe, and you can use a reinforcer test.
  - Interview or checklist:** Ask the learner or others about things he or she likes. Checklists and interviews for this purpose are readily available on the Internet.
  - Observation:** A preference assessment can help you identify potential reinforcers. Gather a variety of items, instruct the learner to play with/use what they want and record their response to each item. Reaching for, consuming, manipulating, and gazing at items should be considered attempts at accessing them. This exercise can be repeated with different items and will provide information on the learner's preferred items or activities.



- **Reinforcer test:** Once items or activities have been identified as priorities, it is important to test their reinforcing properties. You need to provide the item or activity, immediately following a behaviour, and determine if the frequency of that behaviour increases in the future. If it does, the item is, in fact, a reinforcer. If it does not, this item is simply preferred.

*When we identify potential reinforcers, we are identifying a learner's preference. But a learner may like something, and still not be motivated to work for it. For something to be a reinforcer, it must lead to an increase in the target behaviour. We also cannot assume that something that acts as a reinforcer for one target behaviour, will also be a reinforcer for other behaviours. It can be necessary to frequently identify potential reinforcers.*

3. **Implement the reinforcement plan:** Before implementing reinforcement in order to teach new behaviours and skills, you need to determine how you will monitor the learner's progress. You will do so by identifying what information you will record to keep track of the impact of your plan.

There are three main steps for implementing a reinforcement plan:

- **Explain:** Whenever possible, explain to the learner what they need to do and what they will receive. Adjust your explanation according to the learner's skills; use modelling, visuals, verbal explanations, etc. as appropriate for the learner's understanding.
- **Reinforce:** As soon as you see the desired behaviour, provide the reinforcer. Record information about occurrences of the behaviour to monitor progress.
- **Pair:** The selected reinforcer should be delivered simultaneously with praise, smiles, or physical contact. Pairing a planned reinforcer with a reinforcer that can occur naturally will help the learner maintain the behaviour over time.

There are many things you can do to ensure the effectiveness of reinforcement. Firstly, reinforcement must be **contingent**, and it should be **immediate**. There should be minimal delay between an occurrence of the behaviour and delivery of the reinforcer, and the reinforcer should only be offered when the target behaviour occurs. The more the reinforcer is delivered only for the desired behaviour in a consistent and instant way, the more effective the reinforcer will be.

Secondly, consider the learner's **motivation**. The more the person is deprived of the reinforcer, the more effective the reinforcer will be. The learner should not have free or unlimited access to the reinforcer. To prevent satiation, use a **variety** of reinforcers. Make the **size** of the reinforcer worth the effort required to get it: The more worthwhile the amount of the reinforcer, the more effective it will be.

Finally, gradually switch to **naturally occurring reinforcers**. Once there is an effective reinforcement procedure in place and the behaviour or skill has increased to the desired level, plan to transition from planned reinforcers to naturally occurring reinforcers. This helps maintain the new behaviour or skill over time.

4. **Assess and monitor** the learner's progress: When you put your plan in effect it is important to gather information about how it is working. This might mean you record the frequency or duration of the target behaviour or use some other data collection method. Any anecdotal information is not reliable. You need information that shows clearly if the plan is working, such as information that allows you to compare occurrences of the behaviour before and after the plan was put in place. If behaviour is not increasing toward the goal, it is important to review the goal and principles of effective reinforcement, and determine what changes are needed to help the learner be more successful.

## Reinforcement for Teaching and Learning

Reinforcement is the process of adding or removing something immediately following a target behaviour with the goal of increasing the occurrence of that behaviour. It applies to all human behaviour. People are more likely to repeat a behaviour that produces reinforcement and they are less likely to repeat a behaviour that does not. Reinforcement occurs naturally in the everyday world and it can be deliberately planned to bring about desirable changes in behaviours.

Following the four steps for using reinforcement to teach new behaviours and skills as outlined will help you develop and implement an effective plan. To help ensure your plan has the greatest likelihood of success, be clear about the goal, identify reinforcers that motivate the learner, and provide plenty of opportunities for the learner to earn the reinforcers. Monitor the learner's progress. If the target behaviour does not increase, be sure to review the principles of effective reinforcement, and make changes to the plan as needed.

### About Us

Autism Learning Partnership (ALP), a branch of the Department of Education and Early Childhood Development (EECD) in New Brunswick (Canada), is the sole provider of the Provincial Autism Training curriculum for preschool autism agencies and educational personnel in New Brunswick. The Autism Learning Partnership provides bilingual, evidence-based, high-quality professional learning and resources to support families, preschool agency personnel and educational personnel in the province, and has a mandate to establish partnerships with organizations nationally and internationally.