



Applied Behaviour Analysis (ABA)

By Jenna White - Clinical Director

ABA

Applied Behaviour Analysis (ABA) is the application of the principles of behaviour to issues that are socially important in order to produce practical change. Or at least that's what it says in our training manuals! That doesn't quite capture it for me. To me, ABA is a way of looking at life. ABA is a way for children who have previously had ceilings and labels put on them and been given dim prospects, to exceed expectations. ABA is something that brings out true potential and gives families experiences of their child they didn't think they would get to have. ABA is an incredible box of tools, and in this article I invite you to look inside.

Parents whose children have received occupational therapy, remedial therapy, and/or speech therapy will be accustomed to recommendations of 2 x 30-45 minutes per week. ABA is often recommended at higher intensities, for example 3 x 2 hours per week. Intensity of treatment is important for achieving optimal outcomes. There is a gap between the skill set of the child who is receiving a recommendation to move to a remedial school environment or a smaller classroom setting, and the child whose performance is not being flagged by teachers and grade controllers. That gap needs to be closed as quickly as possible, and a high treatment intensity contributes to closing it. As a wise parent said, "The day I stopped looking at therapy as a burden and saw it as an opportunity, my life changed. My kids are professional learners... The more we can make learning look like fun, the better. When our circumstances cannot change, then sometimes our minds must."

My first experience with a child at Catch Up Kids was one that set my expectations for every child thereafter. This child was in a small Grade 2 bridging class in an influential mainstream school. He was being given the recommendation to move to a remedial school. His parents followed every recommendation I gave them. Within weeks of beginning Catch Up Kids services, that recommendation was removed. Within months, he was moved out of the bridging class and into the

mainstream class. He remains successful to this day. I tell this story not to pretend that the road is so smooth for every child or every family. I tell this story to give hope. I tell this story to change mind-sets and put cracks in the ceilings placed on those with differences in learning. I tell this story to show that the traditional methods of intervention are not the only effective ones, and that families have other options to consider before accepting a recommendation to move to a remedial school. There are several excellent remedial schools, but not nearly enough to cater for the number of children who are being identified as not suitable for their current school placements.

Reinforcement

A critical process in ABA that I'll refer to over and over again in this chapter is reinforcement. Reinforcement is often confused with rewards or bribery. Reinforcement means something is given or removed immediately after a behaviour, and that this serves to increase future frequency of the behaviour if directly followed. Reinforcement is the key to teaching new skills and the key to replacing or redirecting problem behaviour.

Reinforcers

A reinforcer is not simply an item or activity that the child likes. It's something potent enough to change behaviour. People will often say, "The reinforcer isn't working". That isn't possible. What's actually happening is that the item you're presenting or removing following the behaviour you wish to see more of is not actually a reinforcer. I clearly remember my mentor, a very skilled and experienced clinician, telling me "If you don't have a reinforcer you might as well go home." To find potential reinforcers, you must conduct preference assessments. These serve to identify potential reinforcers, often in a hierarchy of strength. There are several types of preference assessments, and below is a list of those most commonly used at Catch Up Kids:

- **Asking:**
 - This can involve asking the child himself about his preferences, asking significant others about the child's preferences, or offering a pre-task choice.
 - The advantage of this method is that it's time-efficient.
 - The disadvantage of this method is that research shows a poor correlation between verbal self-reports of preference and physical selection, i.e. what the child says they want and what they choose are often different. There's also the possibility of significant others misreporting preferences.

- **Multiple Stimulus Without Replacement preference assessment (MSWO):**

- Several potential reinforcers are laid out in front of the child. The child selects one. This is the most preferred item and the one most likely to function as a reinforcer or the item likely to function as the strongest reinforcer. That item is removed and the unselected items are re-presented. The child selects one. That item is removed and the unselected items are re-presented. This continues until all items have been selected or the child stops selecting.
- The advantages of this type of assessment are that it identifies a hierarchy and that it's relatively time-efficient.
- A disadvantage of this type of assessment is that it's only suitable for children who have the ability to visually scan a field of items.

- **Single stimulus preference assessment:**

- One potential reinforcer is presented at a time to the child. The instructor typically measures the duration the child engages with each item. The time is capped at two minutes.
- The advantages of this method are that it doesn't require many prerequisite skills and it can be quick and easy to administer.
- The disadvantages are that it doesn't provide a hierarchy of potential reinforcers and it may provide false positives when used with children who tend to reach for anything that's placed in front of them.

- **Paired choice preference assessment:**

- In a group of potential reinforcers, each item is presented in a pair with every other item, one pair at a time. In each pair, the child selects one item. The child's selection is recorded so that at the end, potential reinforcers can be ranked based on selection percentage.
- The advantage of this method is that it provides a hierarchy of reinforcers.

- The disadvantages of this method are that it can be time-intensive and it's not suitable for children who have difficulties selecting from a field of items.

- **Free operant observation:**

- This involves the instructor observing the child and noting the stimuli that they tend to engage with. This may either be in the natural environment, or once the instructor has placed potential reinforcers around the room.
- This method is particularly suitable for children who tend to engage in problem behaviour when items are removed from them, because the items are not removed in this method.
- This method can be time-intensive, especially if the child tends to engage with each preferred item for an extended period of time.

Bear in mind a good reinforcer is also one that's easy to give and remove so that valuable teaching time isn't wasted on problem behaviour evoked by removal of the reinforcer. For example, many parents report that the iPad or other electronics are addictive to their children, and removing access can lead to lengthy arguments and raised voices.

One of the things that parents worry about is having to 'bribe' their children. Let me put your mind at ease by saying there is a very simple difference between bribery and reinforcement. Bribery is giving someone something in exchange for a promise that they will do something for you. Reinforcement is delivered following a behaviour you want to see more of. Reinforcement is a very natural process in all of our lives, and it is what keeps all of us doing the things we do. Receiving money at the end of a month of work keeps many adults going to work. Achieving an adrenaline rush is what keeps many daredevils participating in sports such as base jumping. Being granted good marks is what keeps many (but not all!) students studying.

It is also helpful to keep in mind that while reinforcement may need to be contrived and given frequently initially in order to establish a desirable behaviour that is not currently in a child's repertoire, the aim is always to move towards natural forms of reinforcement (a returned greeting instead of a Smartie as reinforcement for a greeting) and realistic reinforcement frequencies. One way to do this is by moving from reinforcing every desirable response when a target is first mastered to reinforcing every couple of desirable responses after a child has retained a target for some time. Another way is by using a token system.

Token Systems

A token system is an excellent tool for teaching a child

to delay gratification, and being able to space out the frequency at which you deliver tangible reinforcers. When designing a token system, the behaviour analyst will follow these steps:

1. Choose tokens that the child can exchange. At Catch Up Kids, these often take the form of laminated logos from the child's favourite TV show or small pictures of things the child likes (for example, adding pictures of balloons on to floating strings held by Minions).
2. Select desirable behaviours you wish to increase. This can work across periods of time where the child earns tokens for engaging in prosocial behaviours such as inviting another child to play or helping clean up his room or it can work within an academic lesson by giving the child a token for each correct or minimally prompted response.
3. Create a collection of reinforcers that can be earned. These can vary in their quality, for example ranging from bubbles to a new iPad game to an outing to a theme park.
4. Determine the value of the reinforcers in tokens, based on their quality. For example, the bubbles may cost five tokens whereas the outing may cost thirty tokens.
5. Award the child a token contingent on each desirable behaviour.
Allow the child the opportunity to exchange their tokens as soon as they have enough to 'purchase' the reinforcer they desire.

It is also important to pair tangible reinforcers (including tokens) with praise. By pairing, I mean consistently presenting praise along with tangible reinforcers so they take on the reinforcing properties of those tangible reinforcers. Eventually, praise on its own becomes a reinforcer, which is advantageous seeing that it is more often available in the natural environment than tangible reinforcers, it is easy to give, and it costs nothing!

Consistency

A key to success in the recipe of a good ABA programme is consistency across environments and people. All key role-players in a child's life should be on the same page when it comes to goals and interventions for that child. This may require training of parents and significant others. Consistency is particularly important in behaviour management, where every moment provides an opportunity to either teach replacement behaviours or provide consequences to problem behaviour that increase or decrease the future likelihood of this occurring.

Every person involved in a child's life should see themselves as a member of that child's 'team' – someone who has the potential to influence outcomes for that child.

The most successful ABA programmes I've been involved in are those where all key role-players attend team meetings, and recommendations of the supervisor are followed closely.

Curriculum:

In addition to using the principles of ABA, it's important to have a strong curriculum to follow. The curriculum followed at Catch Up Kids consists of eight content areas, each of which are outlined below:

Academic – This content area consists of math and language arts activities aimed at equipping children with reading, writing, typing, and other academic skills needed for functional or scholastic functioning.

Adaptive – This content area is comprised of activities organised into personal, safety, domestic, communication, and community domains. The activities in this domain are aimed at equipping children with all the skills necessary to live independent lives. One of the often-critical lessons we teach in this domain is aimed at increasing the variety of foods a child will eat and the quality of their diet. This can be useful for children with ADHD and other disorders, as certain foods exacerbate their symptoms, and the removal of those foods in their diet can lead to noticeable changes in behaviour and academic performance.

Cognition – This content area is concerned with the skills needed to regulate social interactions, empathise with others, understand the meaning of other people's language and behaviour, make appropriate social choices, demonstrate social reciprocity and interest in others, and develop and maintain friendships. Overall, when we think of Cognition, we think of perspective-taking.

The Cognition content area has thirteen lessons:

- Desires
- Emotions
- Senses
- Physical States
- Thinking
- Sensory Perspective-taking
- Cause and Effect
- Preferences
- Knowing
- Beliefs
- Deception
- Detecting Sarcasm and Intentions.

Most of the activities in this content area are rather complex, and take time to consolidate.

Executive Functions – Executive Functions can be thought of as the "CEO" of the brain, responsible

for all high-level operations. Deficits in executive functions are extremely common in children with disorders such as ADHD.

Examples include:

- Poor vocal impulse control
- Poor behavioural impulse control
- Poor planning ability
- Poor organizational skills
- Trouble multi-tasking
- Low frustration tolerance

The domains in the Executive Functions content are: Attention, Flexibility, Inhibition, Memory, Metacognition, Planning, and Problem-solving.

Language – This content area first looks at teaching children functional language skills, including being able to say sounds, words and sentences, and being able to produce novel and spontaneous speech in order to request, comment, answer questions, and converse, regardless whether this is vocally or with the use of a speech-generating device or some other communication system (See below under Tools for Communication). It then looks at improving quality and content, with lessons such as:

- Attributes
- Pronouns
- People
- Locations
- Sequences
- Tell a story
- Language fluency, and many more.

The Language content area approaches language from the following perspectives:

Matching – This ensures that the child can group objects according to class. For example, a wooden chair, a painted chair, a metal chair, and a plastic chair are all called “chair”.

Receptive language – This ensures that the child can understand the meaning of language used by others.

Expressive language – This ensures that the child can put their thoughts into words and sentences, either vocally or through the use of a device.

Motor – This content area contains activities organised into four domains:

- Gross motor skills
- Fine motor skills
- Oral motor skills
- Visual motor skills

Sometimes behaviour analysts work alone on motor skills, and other times they consult with

physiotherapists or occupational therapists. At Catch Up Kids, we have developed wonderful working relationships with several occupational therapists and physiotherapists, and a multi-disciplinary approach is sometimes best indicated.

Play – The activities in this content area are organised into the following domains:

- Independent play
- Interactive play
- Pretend play
- Constructive play
- Electronic play

A strong repertoire of play skills can be a saving grace for parents who need their children to be able to constructively occupy themselves while they complete another of the thousand responsibilities of a parent. Play skills also create rich opportunities for learning and social interaction.

Social – This content area is comprised of activities in the following domains:

- Social rules
- Non-vocal social behaviour
- Social interaction
- Social language
- Social context
- Self-esteem
- Group-related skills
- Absurdities.

The Language content area feeds into the Social content area, because children are better equipped to learn about nuanced and non-vocal (gestures, body language, facial expressions) communication and how it regulates social interaction once their foundational language skills are in place. That being said, three of the lessons included in most entry-level programmes – Eye Contact, Non-verbal Imitation, and Compliance – are found in the Social content area.

This curriculum is used to guide assessment during the intake process and to guide progress throughout a child’s ABA career. Behaviour analysts at the supervisory level are extensively trained to work with this curriculum and understand how it builds upon prerequisite skills to exponentially increase the child’s chances of successful learning.

Teaching Approaches

There are two broad teaching approaches used at Catch Up Kids – Discrete Trial Training (DTT) and Natural Environment Training (NET). While most programmes actually involve a combination of the two approaches with a stronger emphasis on one or the other the differences

between the two are listed below:

DTT	NET
The goal is to present a high number of teaching trials per sitting	The goal is to present treatment activities which replicate as closely as possible the natural environment of the child
Trials are presented in rapid succession in a highly contrived and structured manner	Opportunities for trials are captured as they present themselves naturally within functional activities
The child is often sitting at a table and using materials that were gathered specifically for the purposes of the lesson to be delivered	The child is seldom sitting at a table, and typical training materials are seldom used
The target items are chosen by the instructor	The target items are chosen by the child or based by the instructor around the child's interests and preferences
Lesson instructions are delivered in a clear, concise way	Lesson instructions are delivered using more natural, conversational language
Clear distinction between correct response and incorrect response	Attempts to respond are reinforced and shaped
A reinforcer is delivered following a desirable response	The reinforcer often forms part of the treatment activity, or is a functional consequence of the tasks completed by the child

Generalisation

Generalisation ensures that the skills a child can perform with one person (e.g. their ABA instructor) can also be performed with another person (e.g. their school teacher) and that the skills the child can perform in one setting (e.g. at our centre) can also be performed in another setting (e.g. in the classroom or on the field at break).

It ensures the child can respond to stimuli that look different from what they are used to and that their responses are natural and varied. Many children with learning difficulties struggle to generalise naturally; they learn things in one way and one way only. The supervisor must be cognisant of this throughout the process and programme specifically to ensure generalisation.

Teaching Tools

Catch Up Kids instructors have at their disposal a wide variety of tools when teaching skills identified as areas of deficit.

Prompting

One such tool is the prompt. A prompt is something provided in addition to the instruction or signal to begin a task that assists the child in responding correctly. Instructors may choose from the following list of prompts:

- Verbal echoic – The instructor tells the child what to say. This may involve giving all or a portion of the correct verbal response.
- Verbal directive – The instructor tells the child what to do. This may involve giving all or a portion of the correct physical response.
- Physical prompt – The instructor gives the child physical guidance to produce the correct response.
- Gestural prompt – The instructor gestures towards the correct response.
- Visual prompt – The instructor provides a visual stimulus which helps the child respond correctly.
- Textual prompt – The instructor provides a written prompt which helps the child respond correctly. Note: This can be useful even for children who are not yet proficient readers.
- Demonstration prompt – The instructor shows the child what to do in order to respond correctly. Note: This prompt is only effective if the child has adequate imitation (and sometimes motor planning) skills.
- Model prompt – The instructor has a peer show the child what to do in order to respond correctly. Note: This prompt is only effective if the child has strong imitation (and sometimes motor planning) skills.
- Choice prompt – The instructor narrows the options down to two by giving the child a choice of two options, one is correct and the other incorrect.
- Receptive prompt – The instructor has the child give a receptive response before giving an expressive response so they hear the expressive response required of them and associate it to the item they're required to interact with. Note: This prompt is only relevant for use in lessons

in which an expressive response is required.

- Proximity prompt – In a field of response options, the instructor places the correct option closer to the child than the other options.
- Voice inflection prompt – The instructor emphasises a part of the vocal instruction or question in order to cue the child in to the correct response. For example, if a child often confuses the responses to “What is six plus two?” and “What is six minus two?” the instructor might say “What is six plus two?”
- Acting confused – The instructor pretends not to understand the child or know what the child is trying to say. This is usually used when the child is not being specific enough or missing a step when explaining or vocally planning something.
- Leading question – The instructor asks questions that help guide the child to the correct response. This is also known as scaffolding.
- Experiential prompt – The instructor allows the child to experience something in order to be able to answer questions or talk about it.

Some important things to consider when selecting the best prompt are:

- Is it effective?
- Can I fade it? It’s pointless to have a prompt that works but can’t be faded (see below), because then the response will not move towards independence.
- Does it capitalise on the child’s strengths?

Prompt fading

As soon as the child is responding correctly with a prompt, prompt fading must begin. Prompt fading is the systematic removal of a prompt across successive trials until the child is able to respond correctly without a prompt. Good prompt fading is critical in order to avoid prompt dependency, a phenomenon in which the child becomes overly reliant on prompting and stops attempting to respond independently, or even waits inactively for someone to prompt him.

It’s important to know which prompting procedure you’re going to use. The following procedures allow you to transfer control of the correct response from the prompt to the instruction or opportunity to perform the correct response:

1. Most-to-least prompting. This is also known as ‘errorless learning’ because it involves prompting in such a way that minimises the chances of the child making errors. It’s a very positive way for the child to learn because they’re constantly responding correctly (with systematically lower degrees of assistance) and therefore constantly receiving reinforcement. The instructor uses invasive prompts in initial trials in order to guarantee correct responding. When the child is responding with ease with the invasive prompt,

the instructor moves to using the next most invasive prompt, and so on until the child can respond correctly without a prompt. For example, if an instructor begins with a full physical prompt, he may fade to a partial physical prompt, and then to a gestural prompt before allowing an independent trial.

2. Least-to-most prompting. The instructor allows the child to respond independently. If the child responds incorrectly, the instructor will step in and provide a minimally invasive prompt. If the child still responds incorrectly, the instructor will provide a more invasive prompt, and so on until the child responds correctly with the prompt.
3. Time delay. This involves inserting a delay between the instruction or opportunity to perform the correct response, and the prompt, so the individual has an opportunity to respond before the prompt is presented.

Shaping

Another tool in the toolbox of an ABA practitioner is the procedure of shaping. Shaping involves reinforcing successively better attempts at a target behaviour, and stopping reinforcement of lesser attempts. Shaping is typically used for behaviours that are difficult or impossible to prompt, for example vocal speech, sustained attention, and sleep hygiene. Let’s look at an example:

Target behaviour: Being able to pronounce the word “apple”.

Current best attempt: “abbuh”.

Every time you say, “Say apple” and the child says “abbuh”, provide reinforcement because that is the child’s best attempt for the time being. You can emphasise certain parts of the word to help the child focus on what needs to be corrected, for example, “Say apple”. This might lead the child to say “abble”. You will now reinforce the child every time he says “abble” and no longer reinforce if he says “abbuh” because “abble” is the new best attempt. To help the child move from saying “abble” to “apple”, you might break the word up into “Say app” and “Say l”. Once the child can say “app” and “l”, you can bring the two parts together again to model “apple”. Once the child can say “apple” when you say “Say apple”, you will only reinforce the child when he says “apple” and no longer reinforce him when he says “abbuh” or “abble”.

Chaining

Yet another tool is chaining. Chaining is used for complex tasks comprised of smaller, more discrete behaviours. For example, brushing teeth, tying shoelaces, or responding to a reading comprehension are comprised of many sub-behaviours.

When chaining is the tool selected, the first step is to create a task analysis. This involves breaking the task down into the individual steps required to perform it. It's important that the level of detail reflects the level of difficulty of the task for the child.

The next step is to decide which method of chaining to use:

- Forward chaining – The instructor initially teaches the first step in the chain. Once the child can perform that step independently, the instructor moves to teaching the second step. Once the child can perform the first and second steps correctly and in sequence, the instructor moves on to teaching the third step. This continues until the child can independently perform the entire task. This method is often used when the steps at the beginning of the chain are easier for the child, and/or when the supervisor wishes to create behavioural momentum (once the behavioural ball is rolling, it's easier to keep going).
- Backward chaining – The instructor teaches the last step in the chain first. Once the child can perform that step independently, the instructor moves to teaching the second-to-last step. Once the child can perform the second-to-last and last step correctly and in sequence, the instructor moves to teaching the third-to-last step. This continues until the child can independently perform the entire task. This method is often used when the steps at the end of the chain are easier for the child, and/or when the supervisor wants the natural reinforcer to be closely linked with the best response. For example, if the last step in making a smoothie is putting the straw into the cup, and the child gets to drink the smoothie as soon as they put the straw into the cup, then the independent response at the end of the chain gets the biggest reinforcer.
- Total task presentation – The instructor teaches all steps in the chain concurrently. This is the most natural way of teaching, as a parent or teacher is likely to guide a child through the whole task as they teach him, however some children require a more systematic approach such as forward or backward chaining.

Maintenance

Maintenance is the term we use to refer to the child's retention of previously mastered skills. When skills are learned, we review them on a scheduled basis until a more advanced skill is learned to ensure the child's knowledge base remains stable as it grows.

Tools for Communication

Communication is a critical skill, one which opens doors to many learning opportunities and more skills. Children who have only one or two gaps to be filled in the Language content area will be able to move quickly

into the Social content area, where their language skills are pulled together into conversation and they learn to adapt their communication to suit their audience. For these children, the emphasis of the communication portion of their ABA programme is usually on expanding the breadth of topics they're able and willing to converse on, and on teaching social pragmatics of language, including what we say, how we say it, our non-vocal communication, and whether or not our communication is appropriate to the situation.

Some children have gaps in the language curriculum that preclude them from responding to higher-order thinking tasks in class. For example, their responses to reading comprehensions may be brief, incoherent, poorly structured, or may miss the point of the question.

Tactile Prompts

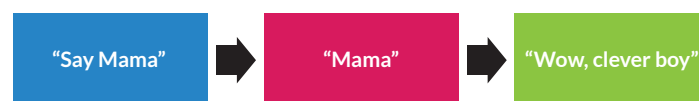
For some speech sounds, there are certain tactile cues or prompts that can be used to help the child produce or refine the speech sound. For example, guiding the lips by the lip corners with your thumb and forefinger can help a child produce the sound "oo", and pressure with your middle finger into the mylohyoid muscle (This muscle runs along the floor of the oral cavity and is accessible from the neck under the head) right before the windpipe can help a child produce the sound "g".

Verbal Behaviour

The Verbal Behaviour paradigm was developed by B.F. Skinner – a founding father of ABA. Skinner looked at verbal behaviour in the same way that behaviour analysis looks at any other behaviour: whatever precedes and follows a behaviour determines whether that behaviour will increase or decrease.

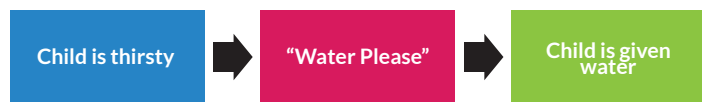
This paradigm moved away from looking at speech from the angle of what an individual can say or how well they can say it, and towards looking at what purpose language serves for an individual and why they learn it. Many children with ASD can say "apple" when asked to say "apple", but don't say "apple" when they're hungry and want an apple.

Skinner was one of the first to look at the role of imitation in speech development. Skinner called this the 'echoic operant'. He noted that it's preceded by verbal behaviour that matches the child's behaviour, and is followed by reinforcement that's unspecific to the verbal behaviour. For example,

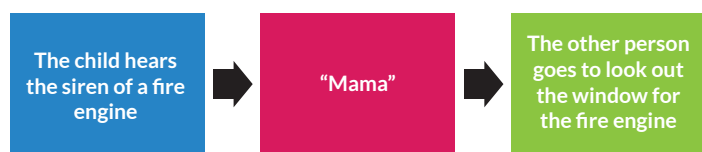


Another type of verbal behaviour identified by Skinner was the 'mand operant'. The mand is preceded

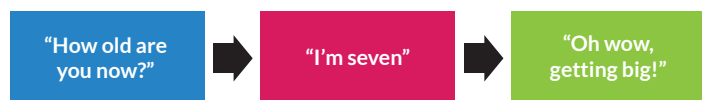
by a physical state in which the child doesn't have access to something they want or need. The mand is followed by reinforcement that's specific to the verbal behaviour, this making the mand the most motivating type of verbal behaviour for the child to engage in. For example,



The tact operant is a difficult type of verbal behaviour to teach many of our children, because it's a very social thing to do –done for the benefit of others in an attempt to maintain social relationships. The tact operant is basically a comment on the environment, given to share interest in something with someone else. The reinforcement for this type of behaviour is also social rather than specific to verbal behaviour. For example,



I like to think of the intraverbal operant as the conversational operant. In the intraverbal operant, someone says something to the child who responds with something different but related. The intraverbal is followed by reinforcement not specific to the verbal behaviour. For example,



Skinner's verbal behaviour paradigm provides our supervisors with an excellent framework for assessing and programming for language development.

Behaviour Management

So far everything I've discussed has fallen under the first of two branches of any good ABA programme: skill acquisition. In skill acquisition, all tools are aimed at increasing desirable behaviour. Conversely, under the other branch of behaviour management, the same underlying principles and tools are used to decrease undesirable behaviour. Many children are referred to Catch Up Kids for behavioural concerns, including those diagnosed with Oppositional Defiant Disorder.

We must be careful when we talk about 'undesirable' behaviour. We must consider ethics. It's only ethical to intervene on behaviour that causes harm to self or others, limits social interaction or learning ability, causes property destruction, or limits an individual's access to reinforcers. We wouldn't intervene on a problem behaviour simply because someone doesn't like the problem behaviour.

In behaviour analysis, careful and scientific consideration is given to the 'function' of problem behaviour, i.e. the reason the problem behaviour is occurring. Behaviour analysis acknowledges the problem behaviour serves some purpose for the individual, and that instead of attempting to 'suppress' behaviour, an appropriate alternative must be found where possible.

The Three-term Contingency

Behaviour doesn't occur in a vacuum. Behaviour is preceded and followed by events or stimuli. The events or stimuli which occur prior to behaviour are called 'antecedents', and the events or stimuli which occur immediately after behaviour are called 'consequences'.

1. Antecedent: Johnny is bored in class and would rather be playing outside. Behaviour: He starts to tease the girl in front of him by pulling her hair. Consequence: The teacher sees this, shouts at him about having respect for others, and sends him outside to 'think about what he's done'. In this instance, the undesirable behaviour is likely to increase rather than decrease, because a desirable consequence followed the problem behaviour. Johnny would rather be outside!



2. Antecedent: Susie is at the shops with her mom and wants a sweet even though her mom has told her "not today". Behaviour: Susie begins to tantrum loudly. Consequence: Embarrassed, Susie's mom shushes her sternly, grabs a sweet from the shelf, and says "You can only have this when you stop that crying!" Susie stops crying and her mom gives her the sweet



3. Antecedent: Reggie's mom is trying to feed him fish fingers. Behaviour: Reggie cries, bats the spoon away, turns his head, and pushes the bowl away. Consequence: His mom sighs and puts the fish finger back in the bowl, thinking,

"I'm too tired for this tonight".



The antecedents influence the current likelihood of the behaviour occurring. For example, when Johnny is bored and sitting inside the classroom, he's more likely to pull the girl's hair, but when he is playing outside and having a great time, he's less likely to pull the girl's hair.

The consequences influence the future likelihood of the behaviour occurring. For example, because Susie knows that in the past her mom has bought a sweet for her when she has tantrumed in the grocery store, she's more likely to tantrum in the grocery store the next time she goes.

I've often seen children will engage in problem behaviour far more often with one parent than the other. That's a strong signal to me that there's something different in the way each parent manages problem behaviour. It's then my job, through parent training, to help parents understand the reasons for this and be on the same page with behaviour management. Equipping a parent with behaviour management tools can be very empowering for them, as well as helping them not to see the child's behaviour either as a permanent product of the diagnosis or a reflection of their parenting. It is also important in many cases to extend the behaviour management protocol to the school setting and the role players involved. As I write this, I am in the process of collaborating very successfully with the parents and school of a fourteen-year-old child whose behaviour has seen him expelled from more than one school prior to the current school and has had his parents reeling with shock and tearing their hair out every time his behaviour escalates to a new level. This child's behaviour has already improved significantly and, thanks to the collaborative efforts of the school and parents, I am confident that he will continue to move towards being a happy, productive, rule-abiding member of his classroom and home settings.

The Four Functions Of Behaviour

When we talk about the 'functions' of behaviour, we are referring to the purposes they serve for an individual. There are four primary functions of behaviour, and these four functions motivate the vast majority

of human behaviour:

Attention

To get attention from someone

Access to tangible

To get access to an item, activity, or person

Escape/avoidance

To get out of doing something, to get away from somewhere or someone, or to avoid unpleasant situations

Sensory

Because the behaviour itself feels good,relieves a bad feeling, or meets a sensory need

Don't believe me that it's so simple? So deterministic?

Why do most people work? _____
→ Money (Access to tangible)

Why do people scratch? _____
→ It makes the itch go away (Sensory)

Why do many people silence their phones when they receive calls from private numbers? _____
→ They don't want to speak to salespeople (escape/avoidance)

Why do some people post selfies on social media? _____
→ They get a thrill out of seeing the number of likes and comments they receive (attention)

Behaviour Intervention Plans

BIPs are a step-by-step guide on how to manage problem behaviour. They are developed as follows:

Identify a target behaviour

1. Determine the function of the target behaviour
2. through functional behaviour assessment (FBA)

An FBA is a systematic method for gathering a) information about the reason(s) a problem behaviour is occurring so that a function-based intervention can be designed to decrease the problem behaviour.

There are three types of FBA: indirect b) assessments, descriptive assessments, and experimental functional analysis.

Indirect assessments include interviews with the c) individual and/or significant others, checklists, rating scales, and questionnaires. They do not involve direct observation or manipulation of the problem behaviour. They rely on reports of the problem behaviour. As such, they are informative, but not reliable enough to base

an intervention plan on.

d) Descriptive assessments involve observing the problem behaviour and taking data on the events that precede it (antecedents) and follow it (consequences). Observations of the problem behaviour occur in the natural environment because it is those events that occur in the natural environment that maintain a problem behaviour. Analysis of the data produced in descriptive assessments by trained behaviour analysts can identify correlations between events and problem behaviour, allowing the behaviour analyst to create hypotheses about the variables maintaining the problem behaviour, and thus about the function of the problem behaviour.

e) An Experimental Functional Analysis (EFA) involves systematically manipulating the variables or events preceding and following a problem behaviour in order to measure their effect on the problem behaviour. Typically, variables are manipulated to test for each of the four functions of behaviour. The experimental condition in which high rates of behaviour are observed is the condition which replicates the variables maintaining the problem behaviour in the natural environment. It is important to note that only a well-trained behaviour analyst can effectively conduct an EFA. An EFA can be time-intensive, and scientifically determining the function of the problem behaviour must be worth the risk of temporarily reinforcing problem behaviour, but the advantage is that the results yielded have a high level of validity.

3. Create an operational definition

a) Define the behaviour in specific, behavioural, measurable terms.

b) This makes the behaviour easy to monitor and ensures consistency between people working with the child.

c) A good example of a definition for physical aggression might be, "Any instance of George attempting to or successfully punching another person with a closed fist or slapping another person with an open hand anywhere on their body except on their palm in the context of giving a high five."

d) An operational definition shouldn't be vague or incomplete. One element of completeness is to ensure the definition specifies when one instance of the behaviour ends and another begins. This is especially important for behaviours like tantrums which may begin gradually or escalate and then taper off.

4. Decide on the antecedent modification(s) that will be used.

a) These are the behaviour management tools you implement before behaviour occurs in order to decrease the likelihood that it will occur. Options are discussed below.

5. Determine the replacement behaviour(s) you'll teach.

a) These are the behaviours you'll help the child acquire in order to get his needs met in an appropriate way so he doesn't have to engage in problem behaviour to get them met.

b) Examples include adequate communication skills so the child can ask for his cookie back instead of tantrumming when his sister takes it. Appropriate play skills so he can play with a marble run instead of spinning the wheels on a car, and good understanding and use of humour so the child can tell jokes to get a reaction from his friends instead of doing things that upset them.

6. Decide on the consequence manipulations that will be used.

a) These are the behaviour management tools you implement immediately after behaviour occurs in order to decrease the likelihood that it will occur again. Options are discussed below.

7. Decide on the measurement type you will use.

b) Measuring behaviour allows you to pick up patterns of behaviour and evaluate the effectiveness of your BIP, among other things. Options are discussed below.

Antecedent Modifications

Choices:

Providing the child with choices of activities, materials, order of events, and other session components can lead to better participation from the child and higher motivation to complete tasks. It's also helpful for children who prefer to have a sense of control over their environment.

Environmental Manipulation:

This involves adjusting something in the environment to decrease the likelihood of the target behaviour occurring. It may involve something as simple as positioning yourself between the child and the door in order to make elopement (running away) less likely during a lesson.

Task Manipulation:

This involves changing something about the task to make it less aversive to the child.

For example, I worked with a child who would tantrum every time we presented him with a book, but we figured out he'd happily read the exact same words when they were written in chalk on the wall.

High-P Low-P Request Sequence:

In this procedure, a series of high-probability requests (i.e. those the child has a good chance of responding correctly to) is presented and reinforced in quick succession and, as soon as the child has gained behavioural momentum, a low-probability request is presented. This increases the chances the child will perform the low-probability request and decreases the chances of problem behaviour occurring when that request is presented.

Response Effort:

This involves making the problem behaviour more difficult to engage in and/or making the replacement behaviour easier to engage in. For example, think how much more likely you are to file your nails instead of biting them if you have nail files next to your bed, in your car door and in your handbag, than if you only have one nail file and it never seems to be where you need it! For another example, smokers who go out for dinner at a restaurant which requires them to go out of the restaurant, through the mall and into the parking lot to have a cigarette will smoke far less in an evening than smokers who go out for dinner at a restaurant with an outdoor smoking section adjacent to where they're sitting.

Functional Communication Training:

This is a very common antecedent modification and is included in the vast majority of BIPs I write. It involves teaching the child to communicate his needs. This has a different focus to skill acquisition language teaching. The focus here is on teaching the child the specific communication phrases he needs in order not to need to engage in problem behaviour, and not necessarily on things like descriptiveness of speech or correct grammar and syntax. In FCT, I might teach a child who doesn't know how to get his mom's attention so instead throws breakable things off counters to say "Mom!" to get her to look at him. Or I might teach a child who hits his sister when she touches his things to say, "That's mine" instead.

Non-contingent Reinforcement:

This involves giving the child access to the reinforcer that maintains the problem behaviour, independent of the child's behaviour, on a time-based schedule. The theory behind this is that if the child has had sufficient access to that reinforcer, he doesn't need to engage in problem behaviour to get it. For example, if a babysitter engages constantly with a three year old, the three year old will likely play appropriately with her, but if the babysitter sits and watches TV while the child is left to her own devices, she may start getting up to mischief

to get the babysitter's attention. Non-contingent reinforcement can be applied to all four functions of behaviour. Many children with behavioural issues get stuck in a vicious cycle that leads them to believe the only attention they get is negative attention, and they end up doing what they can to get it. It is important to find every little opportunity to praise these children for the behaviour you want to see more of, to show them that they are fully capable of acquiring positive attention and that we still value and appreciate the good things they do.

Demand Fading:

This intervention is specific to behaviour maintained by escape/avoidance. Initially, all demands are removed so the child has no reason to engage in problem behaviour. Once problem behaviour is steady at zero rates, a condition is introduced where the instructor presents one demand that the child must complete before being allowed a break. Initially, there may be a spike in behaviour, but once it subsides and problem behaviour is back to zero, the instructor can increase the requirement to two demands. This continues until the child can complete a satisfactory amount of activities per sitting.

Visual Schedules:

These are lists that show the child upcoming order of events. This helps some children to prepare for what's about to happen, and helps other children see how long they have to wait before they will get access to a preferred item/activity. I know I'm far less likely to engage in a behaviour like biting my nails if I know exactly what's in store for me in the week ahead!

In the example below, the child has completed three Maths worksheets and one page of reading, and can see exactly what is left to do before his mother arrives to take him home.

Maths ☺☺☺
Reading ☺○
Outside
Make lunch
Eat lunch
Tidy room
Mom ☺☺



These can also take the form of calendars, for example one on which a child can cross off the days until his father returns from a business trip to ease anxiety.

Transition Cues:

These are verbal warnings that, as the name implies, help the child transition from one

setting, event, or activity to another. For example, “Grace, we have to leave the party in five minutes... four minutes... three minutes... two minutes... one minute... Okay, time to go home!” Transition cues also help children relinquish preferred items. For example, “You can have two more turns and then you must give it back to Charlie... last turn... Alright, time to give it back to Charlie.” Transition cues can also be very helpful for children with planning or anxiety issues.

Competing Items/Enriched Environment:

This procedure involves allowing the child access to certain items. These items are selected on the basis that when the child engages with them, he tends to engage in low levels of or no problem behaviour.

Appropriate Environment:

Some behaviours are acceptable for the child to engage in provided that he does so in a specific location. For example, it is normal for a teenage boy to masturbate, but he must do so in the privacy of a bathroom or (ideally) his bedroom. This allows him the opportunity to meet that need at certain times, but not when he is interacting with others or being taught a skill.

Behavioural Contract:

Also known as a contingency contract, this is a document that outlines a contingent relationship between a specified behaviour or behaviours, and access to a specified reward. It is important to draw up a behavioural contract under the supervision of a trained ABA clinician who knows the requirements an effective contract must fulfil. Essentially, though, a contract must specify:

- What behaviour is to be performed
- Who the behaviour is to be performed by
- What the reward is to be
- Who will deliver the reward

Behavioural contracts are best used with children who have good language skills and the ability to follow rules or demonstrate rule-governed behaviour.

It is critical to tailor the behavioural contract to the child, the family, and potentially the school. This is hands-down one of the most effective behaviour management tools for Oppositional Defiant Disorder, but it is not something you can draw up without the help of an experienced behaviour analyst.

Levels System:

A levels system specified the privileges and rewards available in a number of hierarchically-arranged levels. A child moves up or down the levels based on their behaviour. Desirable behaviours and/or the absence of problem behaviours causes them to move up the levels, leading to access to greater privileges and rewards, whereas problem behaviour causes them to move down the levels, leading to more and more restricted

access to privileges and rewards. I often use the levels system in conjunction with the behavioural contract.

Differential Reinforcement Procedures

Differential reinforcement involves two procedures:

1. Reinforcement of one behaviour
2. Extinction of another behaviour

We use differential reinforcement in skill building, by reinforcing successively better attempts towards a target behaviour and no longer reinforcing (or ‘putting on extinction’) lesser attempts towards that target behaviour. In behaviour management, we most commonly use the five differential reinforcement procedures outlined below:

- a) Differential Reinforcement of Other behaviour (DRO)

There are two types of DRO – whole interval DRO and momentary interval DRO. Because we almost never use the momentary interval DRO at Catch Up Kids, I’ll only describe the whole interval DRO.

In this procedure, a specific target behaviour is identified. We take data to establish the frequency at which the behaviour is currently occurring, and the inter-response time, i.e. the average amount of time that passes between each instance of the behaviour. Then we set the target time for the DRO at an interval shorter than the inter-response time. If the child can stop himself from engaging the behaviour for the target interval, he’s given a reinforcer that we’ve reserved for use in the DRO, i.e., he can only gain access to it in relation to the DRO. If he engages in the problem behaviour at any time during the interval, we reset the timer and don’t give him the reinforcer. As the child’s rate of success in inhibiting the behaviour for the target interval increases, we increase the duration of the target interval so that he can go for longer and longer periods of time without engaging in the problem behaviour.

One thing we must be careful of when using a DRO is that we run the risk of reinforcing any other problem behaviour that occurs during that interval, because as long as the child does not engage in the target behaviour, he will receive the reinforcer. Thus we can only run a DRO if we are willing to take that risk, and preferably if that risk is very small.

- b) Differential Reinforcement of Alternative Behaviour (DRA)

This procedure requires us to identify the target behaviour and a suitable and more appropriate

replacement behaviour. It is most likely to be effective if the alternative behaviour provides the child with the same, similar, or better quality of reinforcement and if it is easy for the child to engage in.

Once the alternative behaviour has been identified, we proactively teach it to the child and reinforce them for engaging in it. We also don't provide reinforcement when the problem behaviour occurs. For example, if the problem behaviour is screaming and the function is attention, we'll teach the child to call our name whenever he's without our attention and reinforce him with our attention and perhaps praise for calling our name. If he screams, we will not provide reinforcement in the form of attention.

A benefit of the DRA is that, unlike the DRO, it equips the child with a new and more functional skill.

c) Differential Reinforcement of Incompatible behaviour (DRI)

This procedure is similar to a DRA but the target behaviour taught to the child is incompatible with the problem behaviour, meaning that the child cannot possibly engage simultaneously in the two behaviours. For example, teaching a child who bites his nails until they bleed to sit on his hands, and reinforcing him for doing so.

The disadvantage of this procedure is that many of the incompatible behaviours that can be selected are not particularly functional – sitting on your hands or keeping your hands in your pockets limits your participation in other activities. Thus this procedure is seldom a first resort.

d) Differential Reinforcement of Low rates of behaviour (DRL)

This procedure is helpful for behaviours that we do not necessarily want to eradicate. For example, a child who puts his hand up in class so often that the teacher can barely get through her discussion with the class. We would want the child to keep putting his hand up to participate in the discussion, but at a lower rate so that it is less disruptive.

Setting up for this procedure would require us to set a limit on the number of times per hour (or other suitable time increment) that the child can engage in the target behaviour. If the child engages in the target behaviour at the limit or lower, he would receive a reinforcer for that interval. If he engages in the target behaviour above the limit, he would not receive a reinforcer for that interval.

e) Differential Reinforcement of Decreasing rates of behaviour (DRD)

This procedure is similar to the DRL, but the limit on the target behaviour decreases systematically. We used this procedure very successfully for a child with Obsessive Compulsive Disorder who felt so compelled to imitate others that he seldom initiated any of his own actions. For example, at the supper table he'd only take a sip from his cup when his sister did so. He'd stare longingly at his cup but not touch it until she reached for hers. His high rate of imitation also began to alienate others; it started to irritate his sister and his peers to the point of them not wanting to play with him. We didn't want to eradicate his imitation because imitation is an excellent way of learning new skills and 'fitting in' with others in social settings but we knew we needed to decrease the rate at which he imitated.

I didn't feel that it was realistic to expect him to jump straight from the high rate he was imitating at to an appropriate rate of imitation, so I drew up a DRD. We took baseline data (a measurement of his rate before intervention) and set the goal at one instance of imitation per hour lower than the baseline. For every hour in which he imitated at or below the limit, we reinforced him. For every two consecutive sessions that he was successful in every interval, we lowered the limit by one instance of imitation per hour. We continued this process until he was imitating at a rate that allowed him to follow along with his peers and siblings without irritating or alienating them.

Consequence Manipulations

The most commonly used consequence manipulation at Catch Up Kids is extinction – in other words, what we do in response to many problem behaviours is determine what the behaviour has been achieving for the individual and make sure that it no longer achieves that outcome. Unless a behaviour is particularly severe or dangerous, we're very likely to use extinction as our first port of call. Extinction can be applied to all four functions of behaviour.

a) Attention extinction

This is also known as 'planned ignoring'. It involves ensuring you don't react to the problem behaviour when it occurs. If the behaviour has always been reinforced by attention (e.g. someone asking "what's wrong?"; someone giving a dirty look, or someone getting a fright), removing that reinforcement can lead to a decrease in the problem behaviour. Bear in mind we're ignoring the behaviour, not the child.

b) Tangible extinction

For behaviours maintained by (i.e. keep happening because they receive) reinforcement in the form of a tangible item, such as food or toys, we ensure the child

no longer receives access to the desired tangible item when they engage in the problem behaviour. Many young children, especially before their communication skills have developed adequately, cry when they want something. People near them immediately begin to offer comfort and items that might pacify them. Primary caregivers such as parents become quite adept at knowing what their children need when they cry. If the child does not naturally outgrow this behaviour or begins to result to more severe behaviours to get what they want, the behaviour needs to be addressed. It's important not to reinforce the child for such behaviours by giving them access to preferred tangible items.

c) Escape extinction

This procedure is used when problem behaviour occurs for escape, meaning to get out of doing things they don't want to do. It involves no longer letting them escape demands or activities they don't want to participate in when they engage in problem behaviour. For example, if we present a colouring activity and the child pinches us, we'll ignore the pinching behaviour, reposition ourselves so that it's harder for him to pinch us, and continue with the colouring task. I must emphasise that it is not the fact that they don't want to do what we are asking them to do that is a problem; it's the way they are communicating that they don't want to do it. We need them to learn that there is a better, more pro-social way of expressing themselves. We also need to teach them to tolerate tasks that are non-preferred or difficult, as challenges will present themselves to the child throughout their life span.

d) Automatic extinction

This is less relevant to the population served by Catch Up Kids, but can be explained in detail if deemed necessary/appropriate by the Catch Up Kids supervisor.

It's important to know when implementing extinction that there's a strong possibility an 'extinction burst' will occur initially. This is a temporary increase in the rate, intensity, or duration of the problem behaviour, and can be quite off-putting to those implementing extinction if they're not forewarned.

Why does an extinction burst occur? Think of this: If, in the past, every time you pulled down on a door handle, your behaviour was reinforced by the door opening, and all of a sudden you pulled the door handle down and didn't receive reinforcement by the door opening, would you just give up and walk away?

No. You'd jiggle the door handle a few times, pull it harder, put your weight more into it, and perhaps even throw your shoulder against the door to try and open it. This is exactly what happens when we put problem

behaviour on extinction – the child initially tries harder to get their reinforcement. But, if the door still wouldn't open, eventually you'd give up and walk away. Similarly, if we're consistent with extinction, the problem behaviour will gradually subside and eventually stop.

The next few consequence manipulation procedures I'll outline are what we call 'punishment procedures', but it's important to note that our field's usage of the term 'punishment' isn't the same as the colloquial usage of the term. To us, it means that something was given or removed in response to problem behaviour that caused that problem behaviour to be less likely to occur in future.

Response blocking:

This involves physically blocking a child's attempts to engage in a particular problem behaviour. For example, if a child is attempting to be aggressive towards another person, we'd keep his hands and legs away from that person until he stops. It must be noted we don't use mechanical restraints at Catch Up Kids, and if we need to physically restrain a child we only do so in extreme cases where the child is an immediate danger to himself and/or others, and we only do so temporarily, i.e. until the problem behaviour subsides. The safety of the children and our staff is of paramount importance to us.

Redirection:

This is sometimes called 'response interruption and redirection'. It involves redirecting the problem behaviour into a more appropriate behaviour. For example, if a child is anxiously biting his nails, we would take his hands and redirect them to a fidget toy or the academic task at hand.

Over-correction:

This involves requiring the child to engage in an activity needing effort when they engage in problem behaviour, often making the problem behaviour 'more effort than it's worth' to engage in. The types of over-correction are:

- a) Restitutional over-correction: Restoring the environment beyond its original state. For example, if a child spits on a window, you may make him clean that window and every other window in the room.
- b) Positive practice: Having the child repeatedly 'practice' the correct way to engage in the behaviour. For example, if a child slams the door, we may have him go back and close it 'nicely' several times.

Response cost:

This involves taking some preferred item away from the child when they engage in problem behaviour. For example, I was once in a session with a teenage boy who was aggressive towards his much younger and smaller

brother. One day, he was standing next to his bike, which he loved, with one hand on a metal child-sized trolley, and was threatening to ram the trolley into his younger brother. I said to him, "If you choose to push that trolley into your brother, I'll take away your bike." He pushed the trolley into his younger brother and I immediately took his bike, put it into my car, took it home with me and only returned it on my next visit to the house several days later. He was never aggressive towards his brother in my presence again.

Time-out:

Time-out is a much more complicated procedure than most people realise, and there are several variations of it. It may involve:

- Not letting the child access any preferred items for a period of time when they engage in problem behaviour
- Not allowing a child to keep participating in a preferred activity when they engage in problem behaviour
- Putting the child in a designated time-out area when they engage in problem behaviour

As with all of the other procedures described in this chapter, it's important to have a certified and experienced behaviour analyst guide the design of the treatment procedure. Two common mistakes I must mention, however, are that often people will put a child in time-out for a behaviour that is escape-maintained (e.g. sending a child who does not like math out of the math class), or implement time-out in a way that the time-out condition is more pleasant than the time-in condition (e.g. sending the child to his room where he can relax on his bed or even watch TV).

Measurement Types

The importance of taking data on problem behaviour cannot be underestimated. Data are what behaviour analysts use to determine whether or not the intervention plans they have put in place are effective, and to what extent. Without data, we would be relying on fallible memories and vague overall impressions. With data, we are equipped to analyse and ensure that the plans we put in place are effective and identify when they are not so that a change can be made.

The most common data measurement types used at Catch Up Kids are outlined below, although there are others that we use under very specific circumstances.

• Rate

Rate is measured by recording every occurrence of the problem behaviour and dividing that number by the length of a session. For example, if head-hitting occurs three times in a 2.5 hour session, the rate recorded is 1.2 per hour.

Recording rate affords us data that are comparable across sessions of varying lengths. If we did not convert to rate, the recorded data may be misleading. For example, if Person A, B and C all record five instances of nail-biting in their sessions, we might think that nail-biting occurred equally as often in all three sessions. However, if Person A's session was 30 minutes long and Person C's session was three hours long, then nail biting happened more frequently in Person A's session than in Person C's session.

• Duration

Duration is measured by timing an instance of problem behaviour from start to end. To calculate average duration, we add together the durations of the individual instances of problem behaviour and divide by the number of instances. For example, if the durations of individual instances were recorded as follows:

Instance one: five minutes
Instance two: two minutes
Instance three: eight minutes
Instance four: nine minutes

We would add the durations to get a total of 24 minutes and then divide by four instances to get an average duration of six minutes.

Duration is an important measure. Think for instance of tantrum behaviour. If we only track rate, we might see that tantrums occur less often at school and think that something about the school environment is helping to decrease tantrum behaviour. However, what might actually be happening is that the tantrums are lasting twenty minutes at school where they used to happen for two minutes at the centre and so there is less time in the day for them to occur. If we track rate and duration, we can ensure that the tantrums not only decrease in rate, but also in duration.

As a closing note on behaviour management, I want to mention that the most effective consequences are positive, immediate, and certain.

POSITIVE – The child has the opportunity to earn something preferred.

IMMEDIATE – Whatever the supervisor says you should do when the behaviour occurs, you do it as soon as the behaviour occurs. For example, earning R5 per chore as soon as it is completed is more likely to get your child to do their chores without being nagged than earning R50 at the end of the month for doing chores every day for a month.

CERTAIN – The child should have no doubt that they will receive the reward they have worked for. For example, "If you do your homework we can go to the park" will be more effective than "Do all your homework and then I'll see if we can go to the park".

School facilitation

School facilitation by a behaviour analyst is something that is accepted readily by some schools (in particular, international schools, where the teachers are more accustomed to having an additional adult in the classroom) than others. I can confidently say I have never had a case where recommended facilitation was not a positive experience for the school, but we need more schools and school administrators in South Africa to act as pioneers– people who see the ability rather than the disability; people who are willing to walk the path less travelled with our clients.

Attending school is something most parents want badly for their children, and a move of schools can be stressful and/or disruptive for a child. It's our responsibility to first determine whether the gap in the child's skills or the extent of the behavioural issues is suitable to having that child stay in the current setting and receive facilitation to remediate the presenting issues. Facilitation is not exclusive to mainstream schools – we currently have several children receiving facilitation at remedial schools with great success, and for some are in the process of fading that facilitation out.

When a facilitator is involved, their role is to 'shadow' the child – being present when the child needs them and being unnoticeable when the child doesn't need them. The facilitator is trained to be discreet, respectful of the teacher's authority in the classroom, fun enough to draw the other children to the child they're facilitating, astute enough to recognise opportunities to work on the school goals designed for the child, and creative enough to think on their toes when things don't go as expected.

Testimonials from schools we have facilitated at are available upon request.

Staff at Catch Up Kids

Every case at Catch Up Kids has a supervisor and a team of junior and senior instructors. We recruit our staff from fields of study such as psychology and education, as those tend to be the fields that attract people with a passion for helping others. Our staff undergo rigorous in-house theory and practical training and must achieve a convincing pass of a theory and a practical exam before they're permitted to work with the children on their own. They must also obtain an international certification in Applied Behaviour Analysis from the Behavioural Intervention Certification Council. In this way, Catch Up Kids assures its children they are receiving an international standard of treatment from responsible, accountable, and regulated professionals.

The Role of the Team Lead

The team lead's responsibilities include, but are not limited to:

- Facilitating open flow of communication between team and parents
- Implementing the recommendations given by the supervisor
- Conducting high-quality ABA sessions
- Ensuring team consistency, for example by asking and answering questions
- Bringing concerns in the programme to the supervisor's attention

The team lead is the glue that keeps the team together and motivated to give of their best in every session. A cohesive team does wonders for a child's progress.

The Role of the Supervisor

The supervisor is responsible for designing and monitoring the child's programme, including a skill acquisition component and a behaviour management programme. The supervisor's duties include, but are not limited to:

- Running workshops or team meetings. These are meetings with the supervisor, team, and parent(s) that may or may not include the child. The purpose of these is to monitor progress, troubleshoot problem areas, and provide the team with ongoing training.
- Conducting overlaps. These involve the supervisor observing an instructor's session, in order to (a) monitor the child's progress and (b) provide the instructor with ongoing training.
- Parent and/or domestic training. This provides an opportunity for the supervisor to equip the parents and significant others with the skills they need to transfer the gains made in ABA sessions over to the home environment.
- School meetings. Children who are enrolled in school and/or are facilitated at school by ABA instructors will require the supervisor to meet with their teachers regularly to discuss their progress.
- Report-writing. Behaviour analysts document everything. Regular, written feedback in the form of statements of goals, meeting notes, and progress reports is one of the things that parents tell me they find so refreshing about Catch Up Kids. This level of communication makes them feel included in their child's progress, and aware of where their child is 'at' at all times

A child who receives 6 hours per week of ABA should receive up to 8 hours per month of supervision. Supervision should be dynamic, meaning that it constantly evolves to suit the needs of the case. As a general guideline, a supervisor will make modifications to anything that's not working in a child's programme after no more than two weeks. Two weeks usually also provides enough data for the supervisor to evaluate interventions.