# Applied Behavioural Analysis (ABA) v the Eclectic Model.

ABA draws from the academic work of BF Skinner in the 1930s - work with animals on what he called 'operant conditioning' that is changing a behaviour through manipulating the environment.

Very briefly, his work says:

Operant conditioning = looking at the causes of an action and at its consequences.

He called it the "law of effect reinforcement" that is behaviour that is reinforced (praise, reward, attention) will be strengthened and therefore more likely to be repeated. Behaviour that is not reinforced, ie, either punished or ignored, tends to be reduced and die out. Professor Lovaas (1970s-80s) then took this work and applied it to young children with Autism, with some success. (Remember there was nothing else at the time.) He did however, use "aversives" including electric shocks, and often physical punishment, when a child did not comply and these were harsh. Although these methods are now used less in ABA, punishments are still considered by Applied Behavioural Analysts to be beneficial in treatment programmes for individuals with Autism (Lerman & Vorndran, 2002).

When I describe the theory of operant conditioning to parents of deeply autistic and therefore non-verbal children I give the example of a child wanting to go outside, screaming, kicking the door, and being let out into the garden. Result is the child thinks this is how I ask to go outside and this is how I will do it in the future since I was rewarded with what I want. If however we ignore that behaviour, and teach a child to use a "Break" card when he wants to go outside, then we have modified his behaviour to a more acceptable level.

Skinner's findings will surprise no parent. It works with every toddler, autistic or neurotypical.

Some of the principles of applied behaviour analysis are incorporated within many specific interventions, such as discrete trial training, incidental teaching, pivotal response training and PECS. These approaches can be helpful in teaching specific skills.

At Queensmill we use what has become known as the eclectic model, that it we have a variety of strings to our bow, namely:

1. FBA: Functional Behavioural Analysis: we try to work out what a child is trying to tell us non-verbally and often inappropriately (kicking, biting, screaming, etc) and teach them to ask for it in a more appropriate manner. When we have concerns about a child's behaviour, we monitor this and record data for analysis. We consider the child and their environment holistically in terms of

what was happening before the behavior occurred, which may have been a trigger, as well as the consequence of the behaviour which may serve as a reinforcement. This enables an effective behaviour plan to be put in place with a range of both proactive and reactive strategies. In addition to this, skill deficits associated with the behaviour are identified so these areas can be addressed in teaching and Speech and Language Therapy or Occupational Therapy sessions (for example: a child having difficulties with their functional communication resulting in frustration when help is needed and they are unable to request this; a child using self-injury to cope with sensory overload because they have not developed alternative strategies to manage this).

2. PECS – Picture Exchange Communication System.
PECS is an evidence-based approach for teaching with children with Autism to initiate and to develop functional communication. It is a way of teaching functional non-verbal communication using symbol exchange. It is highly complex and needs staff to attend an intensive training course. PECS begins by teaching an individual to give a picture of a desired item to a communicative partner, who immediately honours the exchange as a request. The system goes on to teach discrimination of pictures and how to put them together in sentences. In the more advanced phases, individuals are taught to answer questions and to comment. The process of teaching PECS is also based on the work of Skinner. We find this approach to be extremely successful with students at Queensmill, particularly when introduced early. Older children whose vocabulary and discrimination skills are more advanced, move on to electronic versions of PECS (such as the PECS or ProLoQuo2Go app on the iPad or iPhone) which are based on same principles, but are speedier, allow access to a wider range of vocabulary and can be more motivating.

3. Sensory Integration Approaches: We know that children with severe and complex autism experience sensory processing difficulties leading to sensory overload, distress, sensory seeking or avoiding and confusion. Sensory processing refers to how we recognize and respond to information from our bodies (the position and movement of body parts) and the environment (tastes, sounds, smells and information from sight and touch). These things that happen as norm in the neurotypical body are confused and exaggerated in the body of the child with autism, and we therefore practice SIAs which allow us to identify where the child is hypersensitive (over-sensitive) or hyposensitive (under-sensitive), whether their behaviours are due to sensory seeking or avoiding and how we can support them to achieve a calm-alert state by providing the right levels of sensory input.

4. TEACHH – Treatment and Education of Children with Autism and other Communication Handicaps. Seminal to the deficits of autism are the lack of Executive Functioning, the planning ahead and much more aspect of our brains of which we are unaware when it all works well. In a child or adult with severe autism, the lack of EF will mean that they are permanently anxious or frightened about what might happen next as they are inherently unaware. We therefore use TEACCH to show them what will happen in their day, minute by minute. In my view this is the one single most important thing that we can do that ameliorates

their mental health issues. Alongside that, we practice a low arousal approach, which keeps everything calm and predictable.

ABA requires that people practicing ABA in school settings are psychology graduates, then trained to Board Level ABA practitioners although these criteria are less strictly adhered to in the UK than they are in the US. They tend to work one to one with a child. This approach can be very effective in training children with Autism to sit, follow instructions, look and respond to cues. This approach is often used to teach children with Autism activities related to skills such as matching, sorting and labelling. Rewards are used to reinforce desired behaviour. When rewards are used consistently to reward 'work behaviours', this can increase the 'value' of the reward and decrease the value of the work activity for the child. Children can become dependent on the presence of an adult and the promise of a reward in order to complete an activity. This makes the transfer and generalization of skills to other settings and the development of independence more difficult.

By using the Eclectic Model (EM), which incorporates TEACCH, PECS, SIAs and FBA, we are able to teach the above skills equally effectively whilst also developing the child's spontaneous functional communication, their ability to regulate their emotions effectively, their independence skills and an interest and motivation to participate in learning activities that are intrinsically motivating. Using a range of strategies enables us to tailor a child's learning and behavioural intervention to their individual needs, adapting this according to how they respond and progress. Given that there is never anything common amongst children with autism other than they all have the diagnosis, this approach seems sensible, more sensible than a one size fits all approach. It also encourages sociability and the generalization of learned skills into a range of contexts.

ABA, due to one to one staffing nature, is more expensive. It trains the child very well in very specific skills in the first instance, as we do. Lovaas' original claim was that it would ready a child with autism for mainstream school. It is therefore assumed that this model would work with children with higher functioning autism who are able to manage in the mainstream setting. However, it is now described to parents as something for all children with autism, and does use terms such as 'recovery' so naturally parents are enticed.

At Queensmill, we believe we use all of the elements of ABA but in a less rigid setting, a more sociable setting. Strict ABA works one to one with a child, the child becomes adept at responding to verbal tasks that they know well. We practice in a more sociable setting. We believe that since one of the two deficits of autism described in the diagnosis, that is a deficit of communication and social abilities, that we have a duty to help a child progress in communication with others and social interactions with others, and that ABA holds them back in this.

ABA is a behavioural intervention. There is no getting away from that. I believe that in increasingly public perception, it is not the perfect intervention for children with autism that its followers would have us believe. Note for instance

that the National Autistic Society has 5 very well established and regarded schools across the British Isles, none of whom use ABA, all of whom use the EM. They are opening several new Free Schools, and these similarly will be EM in approach. All Local Authority schools in Britain, pressured as they rightly are to offer successful models for children with autism, practice EM rather than strictly applied ABA.

ABA was in its ascendency during the period there was nothing else on offer. If you, as a parent, are faced with nothing v something intensive that does help your child to sit, listen attend and respond, then of course it will be manna from heaven. However, now that LAs have their acts together, and have special schools, and in some cases special schools entirely focusing on autism like Queensmill, who admit children at 2 years, then parents can see the benefits of a similarly successful training model but also a more sociable and generally transferable model.

Approaches that focus on the behaviour rather than the child and make promises or 'recovery' from Autism, have a negative impact on the acceptance of individuals with Autism into mainstream society. This is because they perpetuate the belief that people with Autism should not behave in the way they do and should behave like 'normal' people in order to be accepted and be functional. Preventing an individual with Autism from engaging in a behaviour that is non-harmful to themselves or others and that they find calming (for example rocking) without providing them with an alternative strategy to regulate themselves can be extremely detrimental to their mental well-being and can lead to increased anxiety.

Apart from the often cited Lovaas study (1987) which demonstrated improvements in the behaviour of children with Autism using the ABA approach but has since been widely criticised both for its use of aversives on the children involved in the study and its methodology, there is little research to demonstrate the effectiveness of this approach. Part of the reason for this is the lack of a specific criteria outlining what an ABA programme should look like. ABA programmes are therefore extremely varied across both the country and the world and there is not one overarching organization. There is growing research evidence into the efficacy of Intensive Early Behavioural Intervention Models (Gerry Dawson et al for instance) which describes a way of working that is very similar to our approach in Queensmill, is often taken for being the same as ABA, which it is not.

The National Autistic Society's view is:

- There is a need for more comparative studies of interventions and techniques vs. other high quality, autism specific pre-school programmes.
- Although some randomized control trials have been conducted these are small in number and the quality of the alternative intervention has not necessarily been of a high standard.
- Any new research will need more focus on fidelity (of both the ABA-based interventions and the comparison interventions) There is also a need to

explore in much greater detail moderators and mediators of treatment effectiveness.

- In particular, the characteristics of the children who do, and do not respond to intervention require systematic investigation.

(NAS website)

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