# Busy Analytical Bee

## NEWSLETTER NOVEMBER

Welcome to the November edition. This month we have a review of the research for the overcorrection procedures, a great fruit salad activity (in NET ideas), a review of the career of the incredible Jack Michael, details about time out and events that are coming up in the UK. Have a great month.

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### OVERCORRECTION

Overcorrection is a positive punishment procedure that uses demand to reduce problem behaviour. This procedure was developed by Foxx and Azrin (1972) and there are two types of overcorrection: Restitutional Overcorrection and Positive Practice. Restitutional Overcorrect involves the client returning the environment to it's original state and improving upon it. The example given by Foxx and Azrin (1973) is the case of a client who overturns a table. In this example the client would return tables to their original up-right position and then would have to polish that table. For Positive Practice, the person is shown to perform the appropriate behaviour. For example, when Positive Practise is used in toileting, the client practising pulling down their trousers and sitting on the toilet. Overcorrection has been demonstrated to be effective with toilet training (Azrin & Foxx, 1971), reducing aggression (Foxx and Azrin, 1972) and reducing self-stimulatory behaviours (Azrin & Foxx, 1973). In their paper, Azrin and Foxx (1973) explain the procedures in depth and the rational which is "(1) to overcorrect the environmental effects of an inappropriate act, and (2) to require the disruptor intensively to practise overly correct forms of relevant behaviour".

One application has been toilet training. Azrin and Foxx first used restitutional overcorrection in their study, in 1971, to toilet train 9 adults with mental disabilities. The participants wore devices, alarm pants, that alerted the staff if an accident occurred. If an accident did occur the participant had to take a shower, clean the area where the accident had occurred and then wash their clothes; This returned the environment to it's original state and improved because everything was clean. This study was successful at toilet training, although there were additional components that may have improved the overall efficacy of the toilet training package.

Foxx and Azrin (1972, 1973) investigated this procedure further by implementing it with participants whose needs were different to toileting. The first study (1972) investigated how effective the procedure is with three individuals who displayed aggressive-disruptive behaviours (including property disruption, biting, tantrums, physical assault, etc.). The overcorrection procedure was effective, and behaviours dropped to near-zero levels within two weeks and were maintained with minimal attention from staff. The next study (1973) investigated the reduction of mouthing self stimulatory behaviours (placing objects to the lips with an open mouth). Azrin and Foxx (1973) compared overcorrection to three other procedures, differential reinforcement of other behaviours (DRO; delivering reinforcement for not mouthing), non-contingent reinforcement and physical punishment (slaps). The DRO procedure involved the participant being given praise and an edible when 10 seconds without mouthing had elapsed. The NCR procedure involved delivery of praise and edibles on a variable ratio (VR, average time) schedule around 1 minute, regardless of behaviour. The physical punishment procedure involved one slap on the participants thigh following mouthing. The overcorrection procedure for mouthing involved the client brushing their teeth and washing their face with an antiseptic wipe. Both positive punishment procedures were effective, although overcorrection reduced the behaviour to zero-levels and is the less intrusive procedure. They then implemented the overcorrection procedure with four participants and they successfully eliminated the mouthing self-stimulatory behaviour.

Further studies have replicated the efficacy of overcor-

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rection (Anderson & Le, 2011). Positive Practice with a child who engaged in vocal stereotypy. The Overcorrection procedure used with this child was that he was prompted to place his index finger to his lips ('sssh'/'be quiet' gesture) 100 times, although the authors note this behaviour is not incompatible with vocal stereotypy; he could still engage in the behaviour and be prompted to make the gesture. This procedure was used in comparison with other procedures and the authors demonstrated that overcorrection was effective at reducing the behaviour, when compared to the other treatments. In 2009, Hall and his colleagues investigated improving eye contact with children and adolescents with Fragile X syndrome. They used a percentile schedule, however when children did not meet the schedule they replicated an overcorrection procedure used by Foxx and Azrin (1977) to ensure the percentile was met. This procedure involved them moving their head up, down or straight ahead when eye contact was not made. This procedure excelled the progress so that the percentiles were met by the children.

Overcorrection has many applications, toilet training, social skills, self-stimulatory behaviours, and many more. It has been demonstrated as being effective through much experimentation across populations and settings. It is a punishment procedure and the BACB guidelines (4.05) state that Behaviour Analysts should choose reinforcement procedures as much as possible. If Behaviour Analysts use punishment, they must ensure they programme reinforcement for an alternative behaviours, in line with the ethical code.


Anderson, J., & Le, D. D. (2011). Abatement of Intractable vocal stereotypy using an overcorrection procedure, *Behavioral Interventions*, **26**, 134-146.

Azrin, N. H., & Foxx, R. M. (1971). A Rapid Method of Toilet Training the institutionalized retarded, *Journal of Applied Behavior Analysis*, **4**, 89-99.

Azrin, N. H., & Foxx, R. M. (1973). The Elimination of Autistic Self-Stimulatory behaviour by overcorrection, *Journal of Applied Behavior Analysis*, **6**, 1-14.

BACB,. *Guidelines For Responsible Conduct For Behavior Analysts*. Behavior Analyst Certification Board, 2010. http://www.bacb.com/Downloadfiles/BACBguidelines/BACB_Conduct_Guidelines.pdf

Foxx, R. M., & Azrin, N. H. (1972) Restitution: A method of eliminating aggressive-disruptive behaviour of mentally retarded and brain damaged patients. *Behavior Research and Therapy*, **10**, 15-27.

Foxx, R. M. (1977). Attention training: The use of overcorrection avoidance to increase the eye contact of autistic and retarded children. Journal of Applied Behavior Analysis, 10, 489–499.

Hall, S. S, Maynes, N. P., & Reiss, A. L. (2009) Using Percentile Schedules to Increase eye contact in Children with Fragile X Syndrome. Journal of Applied Behavior Analysis, 42, 171-176.


## TERMINOLOGY

Time out is a widely used punishment (future frequency of behaviour occurring decreases following a change in the environment) procedure. There are two main types of time out procedures. This month we are looking at non-exclusion time-out (next month exclusion time-out).

With this type of time-out procedure the client is not physically removed from the environment. This means the client is excluded from an activity or having access to reinforcement for a period of time although remains in the environment. There are several variations:

*Planned Ignoring:* The therapist turns away, remains quiet or does not interact with the client following the occurrence or a specific behaviour.

*Withdrawal of a specific positive reinforcer:* The reinforcer is removed.

*Contingent Observation:* Client sits away from the activity, but can still view the activity.

*Time-out Ribbon:* The client wears a band or ribbon on their wrist which signals they can be given reinforcement (attention, tangibles etc.). When the band/ribbon is removed they do not access reinforcement.

## NET IDEAS

Cooking is a great NET activity. So why not make a fruit salad! You can talk about colours, shapes, foods and fruits and healthy vs unhealthy. You can receptively identify (give me the fruit that is yellow (LRFFC 10b)) or label (tact) the colours, "What colour is the banana?" (tact 10d). Conversational skill surrounding the fruit has many possibilities. "What fruit do you like?" (IV 12g) "Where do you buy fruit?" (IV 11b). Holding a conversation is a skill within itself (IV 13h) Endless opportunities for language and learning and also the added benefit of hand eye co-ordination, motor skills and self-help skills.

Preceding skills reference to the VB-MAPP Assessment tool:

Sundberg, M. L. (2008) Verbal Behavior Milestones Assessment and Placement Program: The VB-MAPP. Concord, CA: AVB Press LRFFC: Listener Receptive Feature Function. †IV Intraverbals (conversation skills

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## PEOPLE WHO INSPIRE US

This month we are looking at Jack Michael. He has been incredibly influential in Behaviour Analysis. He was born on January the 16th, 1926, in Los Angeles. He lived there all his life until he joined the army. Prior to joining the army he has just joined University College of Los Angeles (UCLA) to study Chemistry but had only completed one semester and was not doing very well in regards to his studies. When he went into the army he happened to take some psychology books with him to Japan and this sparked his interest in psychology. So when he was discharged from the army in 1946 he re-entered UCLA as a psychology student. He also got his PHD from UCLA in 1955. Michael was hired to work at Kansas University as an assistant professor, and one day, whilst looking for a topic to discuss in a lecture he happened upon 'Science and Behaviour' by B. F. Skinner. Since then he has used the theories and principles outlined in this book ever since. Eventually Michael had to leave Kansas University, due to his Skinnerian approach although it was very amicable. He found a job at University Houston that was perfect. This was around 1960 when Behaviour modification was really coming into it's own and his involvement in this helped developed Behaviour Analysis. In 1960 Michael was offered a position at Arizona State University that was beginning to develop a behavioural programme. Unfortunately this programme deteriorated and in 1967 Michael moved to WMU, which is where he worked until he retired, in 2003. His biggest contributions have been into the development of Establishing Operations, helping to further develop our understand this phenomenon (to read a paper by Michael on this click here) and also he was a supporter and a developer of the Association of Behaviour Analysis. To learn more about Jack Michael, click here.

## STUDY TIPS

Find a friend who is willing to study with you. Preferably an Applied Behaviour Analysis novice who you can explain the procedures to. It's a great way to test your knowledge and if they understand it then you can be confident you understand it yourself. Friends also offer naturally occurring reinforcement, as opposed to that chocolate you are denying yourself! Happy studying!

## PRODUCTS

As the weather gets colder, you may begin to spend more time inside. Here is a product list with lots of arts and craft ideas so you can have lots of creative fun indoors! Click here to see it now.

## EVENTS

Ambitious about Autism have announced many new dates for 2015. Be sure to go to their webpage to find out more and see all available dates.

Jigsaw School are offering workshops and open mornings for professionals and parents. There are a workshops in November and December so go to their website to find out more.

Child Autism UK are offering many courses across 2015. Courses are typically £65 for one day (two day costs £130). For more information, please go to their page.

The 4th CBA/QUART Conference will be happening on the 6th of November in Belfast. There is a great line-up of speakers confirmed so go to the Facebook page for more information.

Mary Lynch Barbera is offering a great online course covering 5 units. There is currently a waiting list for the next phase which should occur in Autumn 2015. To find out more and sign up for the next phase click here.

Vincent Carbone will be in the UK from the 22nd until the 24th running a workshop titled "An introduction to Verbal Behavior". This will be held in Chester. Go to his website to find out more.

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Remember to contact us at our email account busyanalyticalbee@gmail.com and like our Facebook page and Twitter page @AnalyticalBee

Next month we will be looking at the use of ACT in the treatment of depression, so be sure to subscribe so you receive the next exciting edition.

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