



Busy Analytical Bee

NEWSLETTER MARCH

Welcome to the March edition of Busy Analytical Bee. This month we are discussing mand training. We are also honoured to be interviewing Kelly from ABA Matters. If you have any suggestions or comments, please forward them to busyanalyticalbee@gmail.com. Have a great month.

MAND TRAINING

The mand is one of the most important operants. In typical development the mand is the first part of language to develop, with first mand behaviours appearing in the form of crying, looking towards a motivating item and pointing. The mand develops further, as the child develops into elaborate sentences and questions (mands for information). Mark Sundberg (2007) states that “mands are very important for the early development of language and for day-to-day verbal interactions of children and adults”. The mand is a request for something, whether it is attention, a tangible or information. When beginning a programme with a client who has little or no verbal behaviour, mand training is the foundation. Whether you use vocal or an augmentative system, mands teach the functionality of communication. This key component has been proven to be beneficial, as it increases the clients control over their environment and making them more independent but also “functional communication skills has also been shown to reduce problem behaviour” Gutierrez (2007).

Many researchers have investigated the development of language in relation to Skinner’s description of verbal behaviour. It became apparent that some procedures did not increase spontaneous language. Hall and Sundberg (1987) stated “According to Skinner’s analysis teaching tacts or echoic relations should not automatically lead to mands”. This was due to the functional relation for each were distinctly different and therefore would not transfer. Lamarre and Holland (1985) taught participants either to tact or mand “on the left” and “on the right”. If a participant was taught the tact first they were tested for the mand acquisition, or visa versa. Then training was transferred to the operant not being trained (for example, if they were trained in the tact, mand training begun). This research showed that acquisition of the tact or mand were independent of each other. However a few researchers have found that tact training can increase mand production. Sundberg et al (1990) found that tact and intraverbal training were more effective at mand production in patients of traumatic brain

injury then mand training.

The resounding feature that defines a mand is motivation which is explained by Sundberg and Michael (2001) who state “the mand is a type of verbal behavior where the response form is controlled by a motivative variable”. Motivation is described in two ways: the Establishing Operation (EO), which increases the value of a reinforcer (deprivation) or an Abolishing operation (AO) which decrease the value of a reinforcer (satiation). These effects influence the success of mand training and manipulation of the EO and AO are important. The weak generalisation of mands in past research may be due to lack of consideration of EO manipulation.

Research conducted by Hall and Sundberg (1987) investigated this issue surround the EO. They developed a procedure in which the participants were taught a chain of behaviours to complete a task. Each participant had four tasks with two pairs of mands. One of these tasks was to make instant soup. In this task the participant required water, soup, bowl and a spoon. When each task was completed to mastery they began mand training by removing one item required to complete the task. In the example of making instant soup the item removed was the hot water. Within one pair of mands, one was prompted using a tact procedure and the other a imitative procedure. These procedures were as effective as one another, although this research supported manipulating the EO and supported by maintenance and generalisation of these skills in follow-up. Michael (1988) discusses this research and it’s promising follow-up in one of his own paper and concludes that “a little bit of mand training might have dramatic effects with respect to the development of functional language”. Further support of EO manipulation comes from Gutierrez et al (2007) who directly manipulated and assessed the influence of the EO and found clear results with two out of three participants.

In addition to manipulating the EO other procedures have been used to increase maintenance of the mand. One procedure that has been proven successful is prompt delay. This has been used in a study conducted by Carbone et al (2010) to increase vocal responses in participants using sign mand training. The results were positive and demonstrated that the prompt delay procedure was effective.

The research indicates that the most important consideration to be made by professionals and parents hoping to sup-

port, develop and generalise mands is to ensure the there is strong EO. The most effective way to transfer the mand to the EO is to manipulate the motivation and have the item not presented. When the item is present the response may be part tact and part mand. If the item is not present the response is produced by the EO only and is more likely to be maintained and successful. It is also important to use appropriate fading, prompting and differential reinforcement procedures. Prompting and fading are essential to learn new mands, but as the acquisition begins it is important that the client begins to produce the mand more independently. Also differential reinforcement increases success for manding by increasing independence by obtaining the largest amount of reinforcement. The reinforcement amount will be decreased as the acquisition begins to emerge, so prompted responses obtain less amount of the reinforcer. For further advise about how to conduct these procedures accurately, speak to your BCBA consultant. Further research is required as many of the current research has only a few participants and there is some contradiction across the results.

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Carroll, R. J., and Hesse, B. E. (1987). The effects of alternating Mand and Tact training on the acquisition of Tacts. *The Analysis of Verbal Behavior*, **5**, 55-65.

Gutierrez, A., Vollmer, T. R., Dozier, C. L., Borrero, J. C., Rapp, J. T, Bourret, J. C., and Gadaire, D. (2007). Manipulating Establishin operations to verify and establishin stimulus control during Mand training. *Journal of Applied Behavior Analysis*, **40**, 645-658.

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Michael, J. (1988). Establishing Operations and the Mand. *The Analysis of Verbal Behavior*, **6**, 3-9.

Sundberg, M. L. (1990). The Acquisition of Tacts, Mands, and Intraverbals by Individuals with Traumatic Brain Injury. *The Analysis of Verbal Behavior*, **8**, 83-99.

Sundberg, M. L. (2007). Verbal Behaviour, In *Applied Behavior Analysis* (2nd edition, pp 525-547), New Jersey: Pearson Education, Inc

Sundberg, M. L., and Michael, J. (2001). The benefits of Skinner's Analysis of Verbal Behavior for Children with Autism. *Behavior Modification*, **25**, 698-724.

EVENTS

The Experimental Analysis of Behaviour Group (EABG) conference is coming to University College London on 30th-31st March 2015. It costs £70 for full registration for attendance, although discounts are available for presenting delegates or students. There will be workshops held on the 1st of April. For more information go to <http://eabg.bangor.ac.uk>.

A two-day workshop is being held by Skybound Autism Therapy in Bristol. The workshop will be presented by Mary Barbera is titled 'Understanding Implementing effective Autism Programming from toddlers to teens'. The workshop will be on the 6th and 7th of May and costs £225 (early bird price until 28th February—plus booking fee) or £250 after the 1st of March. For more information and to book click [here](#).

The UK-SBA have announced a PBS workshop on the 14th and 15th of May. They are hosting Prof Rob Horner, as their guest speaker at the University College London. To attend one day non-members will pay £175 (members £100) or to attend both days non-members pay £250 (members £150). To register click [here](#), although members must ensure they log in before booking.

The BILD PBS International Research and practice Conference is being held in Dublin, on the 6th, 7th, 8th of May 2015. They have many knowledgeable speakers joining them to discuss research and development within the field of PBS (Positive Behaviour Support). The cost of the workshop depends on the package you chose. If attending the 6th (the pre-conference symposium) will cost £50, and to attend both the 7th and 8th (plus refreshments and 1 bed and breakfast) will cost £650 for non-members. Click [here](#) for more information.

Ambitious about Autism have announced many new dates for 2015. There is a workshop in May titled 'Introduction to Autism and ABA'. Be sure to go to their [webpage](#) to find out more and see all available dates.

Jigsaw School are offering numerous workshops and open mornings for professionals and parents. There are a variety of dates available so please go to their [website](#) to find out more.

Knopse ABA is offering two workshops for delegates to learn more about Applied Behaviour Analysis - Verbal Behaviour (ABA-VB). The workshop is split into two parts and part 1 will be 12th-13th June and part 2 on the 14th-15th June. The workshop will be held in Hannover, Germany. For more information, go to the website by clicking [here](#).

Keys for Learning have announced a two day workshop hosted by Tom Caffrey (BCBA, M.E.d), in Edinburgh on the 19th and 20th of June. The cost is £199 for professionals and £149 for parents/grandparents. For more information or to book a place email Gemma at gemma@keysforlearning.co.uk

Peach are offering many courses across 2015. Courses are typically £65 per day (one two day workshop costs £130). There is an initial tutor training course on the 20th and 21st of May (Manchester). For more information regarding other workshops (workshops are being held at a Manchester or Ascot location), then please go to their [page](#).

Interview

KELLY TAYLOR-SAUNDERS



We are delighted to be interviewing Kelly Taylor-Saunders in this edition. Kelly has had many years of experience working in ABA and is an amazing BCaBA.

Kelly has set up her own ABA consultancy company, ABA matters, and although she currently works alone, has plans to develop her services this year.

Please tell us a little bit about your career so far

During the final year of my Psychology degree I became an ABA tutor. I loved it instantly and when I graduated I accompanied the little boy that I had been teaching for a year, to help him transition to TreeHouse School and ended up with an interview and a job there. I taught at Treehouse for almost 5 years and it was whilst working there that I and 10 other colleagues were the first students in the UK to study and sit the BCaBA exam. All 11 of us passed.

From there, I moved into various mainstream settings because I knew that ABA was too good to keep just for the world of Autism, ABA is a way of life and a way of teaching that can benefit everyone, not just those with a diagnosis of a developmental delay.

After the birth of my first daughter, I decided to return to Consulting on ABA home and school based programmes and have been doing that ever since.

I pride myself on having a manageable caseload, one that ensures that I am available to my clients whenever they need me. I also work closely with some wonderful BCBA's in order to continue my professional development and maintain my certification with the BACB.

Could you please tell us some more about ABA Matters and your role?

ABA matters is my company, I am the founder and only Consultant at present. I incorporate both a Supervisor and Consultant role for the families that I support, this means that I am available for monthly team meetings and in between these via phone/email and Skype.

I conduct assessments of children who have developmental delays and then create bespoke programmes that enable parents, tutors and teachers to teach each child the skills that they are currently missing. This can be for home and school based programmes.

I regularly teach workshops for parents and professionals on various topics within the field of ABA. I also offer consultation to mainstream and special educational settings, on a wide variety of issues such as managing behaviours that challenge, improving social and community based skills, improving school attendance, as well as developing and maintaining academic skills.

I am a "hands on" consultant and offer lots of practical support so that tutors and parents develop new skills and are able to fully support each other and the child. I am based in Essex, but travel to neighbouring counties and London.

What do you most enjoy about your role?

I love my job. I've been in this field for 18 years now and

have never stopped learning. I feel it is a privilege to be invited into someone's home or a school and offer support at what can be one of the most challenging times of a child or young person's life.

It is incredibly reinforcing for me to see the children on my caseload develop and retain new skills and to see the difference this makes to them and their parents. With ABA, we can prove that what we are doing works and can substantiate this with data. This makes a big difference in terms of the services that a child receives. This is one of the many reasons that ABA is so successful.

ABA is exciting, because it really changes lives, I feel very lucky to work in this field.

What do you feel is the most important component of an ABA Home programme?

Being the consultant is only one piece of the jigsaw, without dedicated parents and tutors, a child will not make progress. Every member of the team is important and should be treated as such.

This is why I am available to my teams in between face-to-face meetings, because otherwise the child's progress may be held back.

What advice would you give to parents seeking ABA services?

Speak to various Board Certified Consultants and find someone that you are truly happy to entrust your child's programme with. It is daunting and a huge emotional and financial commitment to make, so you must have the right team. Ask questions, lots of them and take recommendations from those who have or are currently working with ABA professionals.

What can we expect from ABA Matters this year?

I am launching a brand new service in Essex. As well as continuing to create and oversee ABA home and school-based programmes for children who may have a developmental delay, there will also be regular communication and behaviour clinics for children who may have various diagnoses.

Please keep up to date via my website www.abamatters.co.uk and facebook page <https://www.facebook.com/pages/ABA-matters/317314295053455?ref=hl>

It is wonderful to interview a dedicated Behaviour Analyst with such extensive experience in the field. If you want to find out more about Kelly and her services, please check out the facebook page or website for ABA Matters. Thank you so much for sharing your time with us.

If you want to share your story with Busy Analytical Bee, email us at our email address, busyanalyticalbee@gmail.com



PRODUCTS

This month's wish list focuses on books to help you revise for the BCBA exam. "Applied Behavior Analysis" by Cooper, Heron and Hewitt is an essential book for study, although it is crucial that you use more resources to achieve success. Please follow the link to look at the different books listed <http://www.amazon.co.uk/registry/wishlist/I9DPB5P15U7R> and good luck if you're sitting the exam!

STUDY TIPS

'Pass the big ABA exam' has a variety of revision resources to help you pass the BCBA exam. They have workshops and video lectures and also a mock exam. There are dates for the workshop available throughout April, for anyone preparing to sit the exam in May, and costs \$400 (£284.98). The mock exam costs \$350 (£226.69).

TERMINOLOGY

This month we are going to review reinforcement and punishment. Neither reinforcement nor punishment are defined by the item (it's nice or not), but on the effect it has on behaviour. If reinforcement is in affect the behaviour will reoccur and increase in frequency. Punishment has the opposite effect and decreases the frequency of behaviours and makes them less likely to occur. Look at the table and then review the examples.

	Behaviour Increases	Behaviour Decreases
Add stimuli to the environment	Positive Reinforcement	Positive Punishment
Remove stimuli from the environment	Negative Reinforcement	Negative Punishment

Positive reinforcement: You work hard on an assignment and receive a good grade (stimulus added). On your next assignment you spend as much or more time studying (behaviour increases in frequency).

Positive Punishment: You receive a bad grade (stimulus added) on a piece of course work, procrastinating behaviours (checking social media, online shopping, etc) ceases (behaviour decreases in frequency).

Negative Reinforcement (escape): Your fire alarm goes off when you burn toast and is aversive. You press the reset button, the alarm stops (stimulus removed) and next time you reset the alarm (behaviour increases in frequency).

Negative punishment: You usually keep loose change in your pocket, however it falls out. You lose your money (stimulus removed) and you stop keeping loose change in your pocket (behaviour decreases).

NET IDEAS

A great activity for generalisation of targets is bingo. It will require some preparation to customise the game towards your client, although it could be quite rewarding. You could use pictures or written text on the board and you could have a variety of cues for the caller. You could pull out 3D objects (VP-MTS 7 d) or matching squares and when everything is successfully matched you have a winner. The 3d objects or matching squares could have identical (VP-MTS 7b) or non-identical pictures (VP-MTS 9b, 9d), associating pictures, for example socks and shoes (VP-MTS 10e), or be text to be matched with picture, or visa versa (reading 15M). You could also use vocal cues and call out the tacts to be receptively identified by the players. This game would be for more advanced learners as it requires a few of prerequisite skills. This game typically requires 3 or more players so it will also help develop those important play and social skills (Social 9f).

PEOPLE WHO INSPIRE US

Edward Thorndike was a pioneer in Behaviourism and born August 1874, in Massachusetts, USA. He spent a large portion of his career working as a psychologist at Columbia University. His main field of interest in psychology was education, learning and intellectual testing. He was also one of the first psychologists to begin conducting experiments with animals. He created a puzzle box and investigated if animals could learn through imitation or observation. He used cats and placed them inside the puzzle box that had a lever or button to open the cage. He compared the length of time it took to escape between cats who observed the escape behaviour and cats who escaped through trial and error. There was no difference in time, which indicates that the cats did not learn through observation. From his research he developed his theory of learning. Thorndike stated the 'law effect' that discusses that behaviours that are followed by good consequences increase. He also identified three main areas of learning, abstract intelligence, mechanical intelligence and social intelligence. He died in New York in 1949 aged 74.

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 vocal stereotypy, so be sure to subscribe so you receive the next exciting edition.

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