



Busy Analytical Bee

NEWSLETTER JANUARY

Welcome to the first edition of 2017! I hope you have had an amazing Christmas and are ready for the new year! This edition we are reviewing different research designs commonly used in the literature. We are also celebrating the career of Sigrid Glenn and taking a look at doctors and nurses role play as an NET idea. Thank you for all your support during 2016, and I wish you all the very best for 2017!

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RESEARCH DESIGNS

This month we will be looking at the various research designs used in the Applied Behaviour Analysis (ABA) literature. Commonly researchers will complete single case studies, in which around 1-5 participants may be involved. This is because of the field's emphasis on social significance issues, so researchers may capitalise on an issue that they come in to contact with, develop an intervention and publish the results. In this article we will discuss the most popular research designs used in the field of ABA.

The Reversal design is a very simple and popular design. This design uses three phrases which are baseline (A), Intervention (B) and baseline (A), which means it is also referred to as an ABA design. The return to baseline after an intervention would demonstrate control over the behaviour (the intervention caused changes in the behaviour). When the behaviour pattern observed in the first baseline is observed again in the return to baseline phase, then the intervention demonstrates control (see figure 1). This design can not be used for targets that cannot be unlearned, for example a sign

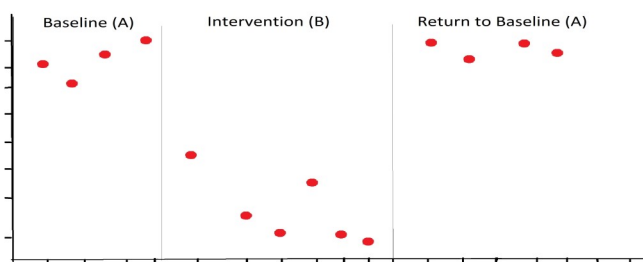


Fig. 1: Reversal Design: Fictitious data. Picture made for Busy Analytical Bee

mand target. Once a skill is taught in the intervention phase, the skill will still be present in the return to baseline phase. This design was used by Marcus and Vollmer (1996) in one of their experiments in the paper they published on Noncontingent reinforcement (NCR). The focus of this study was reducing Self-injurious behaviour, aggression and tantrums and increasing mands. They used NCR and then returned to baseline to assess how effective NCR is as a treatment for these behaviours.

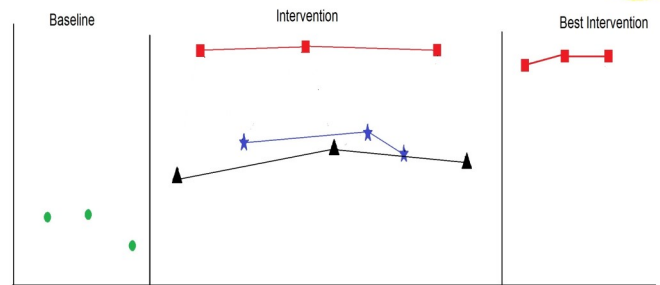


Fig. 2: Alt. Treat. Design: Fictitious data. Picture made for Busy Analytical

Alternatively researchers may choose to use a Alternating Treatment Design to assess the effectiveness of a variety of interventions. In alternating sessions or days, each intervention would be used and the data would show which treatment is the most effective. In the final phase the best intervention would be used in isolation (see figure 2). The main draw back to this method is that there may be a cross over effect, which means that one intervention may influence the results of the other interventions. Neely et al (2014) used this design to assess the effectiveness of exercise on academic engagement and stereotypy during teaching. The three interventions they compared were no exercise, a short period of exercise and exercise until the child indicated they had had enough (were satiated).

Another popular design is the multiple baseline design. This design is used when one intervention is used across participants, settings or behaviours. The intervention would be applied to one of these. For example across settings the first place may be the classroom, then after many trials or days, applied to another

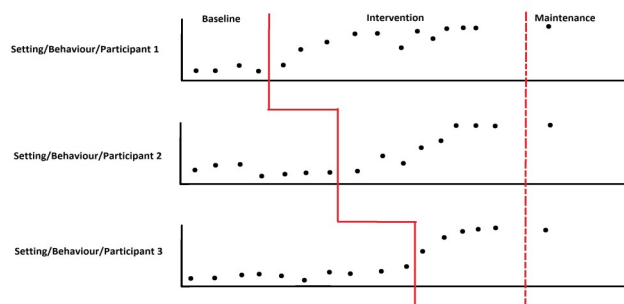


Fig. 3: Multiple Baseline Design: Fictitious data. Picture made for Busy

setting (e.g. the playground), and so on. This design demonstrates control of the intervention, as the behaviour or levels of responding remain the same for the untreated participants, settings or behaviours (see figure 3). Steege et al (1987) compared prompting using a multiple baseline design across behaviour chains (making toast, loading a washing machine, etc.).

The final design we will discuss is a changing criterion design. This design involves setting a criteria on a response or behaviour of interest and then increasing the criteria over time to manipulate the behaviour. Behaviour or levels of responding will typically follow the criteria, which shows the intervention (the criteria change) has control over the behaviour (see figure 4). This design was implemented by Mahoney, et al (1971) in their research into toilet training. The toilet training progressed in phases, first the child had to approach

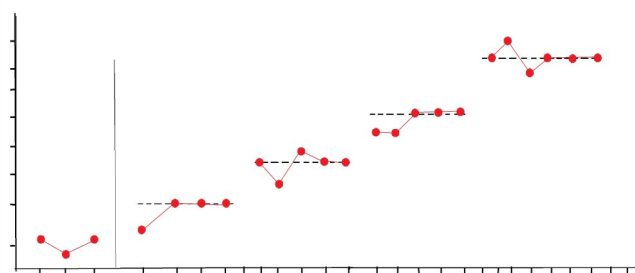


Fig. 4: Changing Criterion Design: Fictitious data. Picture made for Busy Analytical Bee

the toilet, then they had to go to the toilet and lower their trousers, and so on. Once they successful completed one phase, the child move to the subsequent phase.

Mahoney, K., Wagenen, R. K., Meyerson, L. 1971. Toilet training of normal and retarded children. *Journal of Applied Behaviour Analysis*, **4**, 173-181.

Marcus, B. A., Vollmer, T. R. 1996, Combining noncontingent reinforcement and differential reinforcement schedules as treatment for aberrant behaviour. *Journal of Applied Behaviour Analysis*, **29**, 43-51.

Neely, L., Rispoli, M., Gerow, S., & Ninci, J. 2014. Effects of Antecedent exercise on academic engagement and stereotypy during instruction. *Behaviour Modification*, 1-9.

Steege, M. W , Wacker, D. P., & McMahon, C. M., 1987. Evaluation of the effectiveness and efficiency of two stimulus prompt strategies with severely handicapped students. *Journal of Applied Behaviour Analysis*, **20**, 293-299.

NATURAL ENVIRONMENT TEACHING (NET) IDEA

This months NET idea is role playing 'Doctors and Nurses'. You can use bears or dolls as patients or be the patients yourself. This play activity gives a great opportunity for imaginative play, although may require some props, for instance, stethoscope, empty bottles (medicine) and a toy syringe (play, 7M, 8M). You can incorporate all these instruments, and also body parts, in the play as both tact or receptive targets (LR*: 4c, Tact 7a). These may also work as mand targets. This NET



Picture from: <https://flic.kr/p/>

will allow you to work on tact or receptive targets of different actions, sleeping, sneezing, coughing, for example (LR*:4d, 5b, Tact, 6b, 7d, 10a). Also noun-verb combinations if using bears or dolls to support the play, for instance "baby sleeping" or "bear laughing" (tact 9M). This activity also supports imaginative play development (play 11M). It can also to help to decrease anxiety for you client when they visit the doctors, as they are familiar with the instruments and decreases the uncertainty.

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.

*LR: Listener Responding

TERMINOLOGY

Integrity: This is when an intervention is being delivered in the same manner across teachers, including teaching staff, tutors, teachers, parents, etc. This involves delivering the same level of prompts, the same level of reinforcement and using the same stimuli. If these aspects are not consistent across the different teachers the intervention is said to have poor integrity and will impact the behaviour change programme negatively. This may make acquisition slower.

EVENTS

Contextual Counselling are offering a [workshop](#) on the 12th May 2017, and is an Introduction to Acceptance Commitment Therapy (ACT), presented by Dr. Joe Oliver and Dr. Marc Balint. This will be held in London and cost £130 (early bird).

[Child Autism UK](#) offer a variety of courses throughout the year. There are courses including "Increasing motivation", "School Shadowing" and more!

The Applied Behaviour Analysis Forum (ABAF) hold regular meetings for their members. For more information you can go to their [website](#), also you can email Nick Barratt on Nick.Barratt@dimensions-uk.org to become a member and join the mailing list.

Ambitious About Autism run regular workshops for parents and professionals. They cover a wide variety of topics, including Autism, ABA and about other issues including exclusion, discrimination, etc.. To find out more, visit their [website](#).

EABG dates have been announced! The conference will be held on the 10th, 11th and 12th (workshop day) of April. Keep up to date by following the [Facebook page](#).

ABAI will be happening on the 14th-15th of November 2017.

Association of Behavior Analysis International (ABAI) Ninth International Conference will be held on the 14-15th November in Paris, France. To find out more go to their [website](#).

PRODUCTS

This month we have pulled together some items that would be useful when conducting a Level 1 Assessment for children using the VB-MAPP (Sundberg, 2008). The toys in the [wish list](#) are mostly appropriate for younger children.

Sundberg, M. L. (2008) Verbal Behavior Milestones Assessment and Placement Program: The VB-MAPP. Concord, CA: AVB Press.

From: <https://fic.kr/p/aU28br>



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 is a [5 week workshop package](#) which costs \$440 (£346.01) or a [mock exam workshop](#) costs \$259 (£226.69). Also, you can purchase their [Study Manual](#) which costs \$129 (£101.44). Additionally, there is a [video lecture series](#), and there are 30 hours of pre-recorded lectures available. You can pay to access the lecture series for 7 days for \$75 (£58.98), or for 30 days at \$199 (£156.49).

PEOPLE WHO INSPIRE US

This month we are celebrating Sigrid S. Glenn. Sigrid S. Glenn has co-authored four books and written over 45 articles and book chapters, which proves she is very dedicated to the field of Behaviour Analysis. She was born in 1939 and studied at North Texas State University (now UNT). She was introduced to Behaviour Analysis in 1969 by Donald L. Whaley. Whaley gave her Skinner's new book 'Contingencies of Reinforcement' which sparked her love for the field. At the beginning of her career (1978-1987) Glenn worked in mostly clinical settings. Following this she worked towards developing a Masters degree programme at UNT. Between 1994 and 2004 Glenn began to develop her concept of metacontingencies. She published several papers developing the concept and beginning to conduct experiments to support this idea. Following successful experiments into cultural metacontingencies, Glenn established a Behaviour and culture lab within UNT. If you would like to learn more you can check out her [Professional website](#), or alternatively her [ABA history page](#).

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

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HAPPY NEW YEAR