Busy Analytical Bee

NEWSLETTER January

Welcome to the January edition. Happy New Year everyone. In this edition, I review the research into teaching in the Natural Environment. The NET (activity idea) focuses on using colourful rice, which is a fun sensory activity to encourage language. I celebrate the career of Justin Leaf. There's also events, study tips and product suggestion for you to check out. Have a great month.

Kirsty Angel M.Sc. BCBA (Author)

NATURAL ENVIRONMENT TEACHING (NET) AND INCIDENTAL TEACHING

Typically we learn through our interaction with the environment and with other people. In early education, teachers may set up activities that are designed to expose their learners to a specific concept, generalise acquired skills or support social skills. Developmental disorders can impact a learners ability to learn from the natural environment. Within an Applied Behaviour Analysis (ABA) approach, educators use a variety of Discrete Trial Teaching (DTT; Table work) and Natural Environment Teaching (NET; play based) activities. DTT enables teaching to focus on a high number of learning opportunities around language, academic and cognitive tasks. NET focuses on teaching a variety of skills through naturally occurring events or activities, for instance meal times or other routines, community trips or play.

The first researchers to investigate learning in the Natural environment was Hart & Risley (1968). In a class of disadvantaged children they explored teaching the use of colours as a adjective-noun combination (e.g., "red car"). Despite teaching the adjective noun combinations within a group session, and praising correct uses in free play (Natural Environment), the children's use of this language did not increase. The teachers then began withholding items, bicycles, equipment, etc.) and only gave the children access to the items when they requested them using the adjective-noun combinations. The authors reflect that the teaching environment and free play environment, were so different that stimulus control of the behaviour did not occur. This highlights the importance of teaching in the environment and under the circumstances you wish the learner to use the behaviour.

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The DTT approach to teaching, despite it's numerous benefits, does not necessary lead to mastered skills across settings, people, and novel stimuli. Welch & Pear (1980) states that "recognition that generalisation is not necessarily an outcome of language training has become an issue of considerable concern". A comparison of DTT with picture cards, photo cards or real life objects found that real life objects lead to the strongest evidence of generalisation for three of the four participants. It is also interesting to note that the researchers found that all approaches to teaching required a similar number of teaching trials to meet the predetermined acquisition level. They recommend "parents, teachers, and researchers to use real objects as training stimuli as much as possible whenever generalisation to these stimuli is the desired objective". However, having real objects available for all and every teaching target may not be possible, although it does highlight the importance of using real life objects to ensure better generalisation of skills.

There are also benefits to teaching language skills during a learning activity. McGee et al (1983) investigated teaching receptive object labels during the task of pre-

paring food, which is an important self-help skill. The authors state "Training in naturalistic settings substantially increases the amount of instruction that can be provided to autistic children, since language skills may be trained concurrently with other adaptive skills such as meal preparation, leisure activities, or self-care skills". The researchers taught two participants four sets of targets. Baseline average percent correct were 31% and 20.25% for participant 1 and participant 2, respectively. During the intervention the average percent correct were 70.75% and 72.5%, for each participant respectively. These tasks focused on the participants preparing their own meals, and in addition the researchers embedded these receptive object labels, adding value to this activity.

In addition, it is important to consider behavioural cusps in programming. A behavioural cusp is a behaviour, which when acquired exposes the learner to new learning opportunities, contingencies, responses, environments, etc.. This was discussed by Rosales-Ruiz & Baer (1997), who discuss the example of a baby who learns to walk from crawling. There will be many behaviours that are prerequisites for walking, although when the baby begins to walk, this will 1) open them up to more environments, access to new toys, activities etc., 2) open them up to new social interactions, 3) develop visual perception skills, 4) build further physical development.

Teaching in the Natural Environment is incredibly important to developing, maintaining and generalising skills. Hart & Risley (1968) advise teachers to create "a functional environment where the contingencies for pre-academic behaviour approximate those applied to such behaviour in the "beyond-preschool" environment". The implication for this for all teachers, parents and educators is to create an environment that supports the target behaviour when teaching. Considerations should be made to teach skills within activities that are meaningful to the child, to optimise learning opportunities. Also, to consider behavioural cusps, which may increase future learning. For support with teaching in NET, contact a Behaviour Analyst.

From: https://flic.kr/p/7bzwQ2

Hart, B. M., & Risley, T. R. (1968). Establishing use of descriptive adjectives in the spontaneous speech of disadvantaged preschool children. *Journal of Applied Behavior Analysis*, **1**(2), 109-120.

McGee, G. G., Krantz, P. J., Mason, D., & McClannahan, L. E. (1983). A modified incidental-teaching procedure for autistic youth: acquisition and generalisation of receptive object labels. *Journal of Applied Behavior Analysis,* 16(3), 329-338.

Rosales-Ruiz, J., & Baer, D. M.(1997) Behavioral cusps: A developmental and pragmatic concept for behaviour analysis, *Journal of Applied Behavior Analysis*, **30(**3), 533-544.

Welch, S. J. & Pear, J. J. (1980). Generalisation of naming responses to objects in the natural environment as a function of training stimulus modality with retarded children, *Journal of Applied Behavior Analysis*, **13(**4), 629-643.

EVENTS

On the 25th January, Daisy Chains are holding two events. First 9-12 there is a Applied Behaviour Analysis Theory workshop, and 1-4 there is a Autism/Provision and the EHCP. The first costs £26 per person, and the second is free of charge. To book a place email Daisy Chains on info@daisychainseducationalservices.com

Child Autism UK offer a variety of events for extending your skills and knowledge. These include an introduction ABA Tutor Training, Advanced ABA Tutor Training, Lead Tutor Training and more! Learn more on their courses page.

Beyond Autism have some training dates for Interactive Storytime Workshop. This focuses on teaching skills to make story time engaging and maintaining attention to ensure you can embedded those important skills. Dates include 13th January and 3rd February. It costs £80 per person.

Wanting to learn more about Acceptance and Commitment Therapy (ACT)? Contextual Counselling are holding two events next year. A webinar with Richard Bennett on the 27th February, and a workshop in London with Russ Harris on 23rd and 24th March. Learn more.

NATURAL ENVIRONMENT TEACHING (NET) IDEA

This months activity is using coloured rice for a great sensory activity. The rice will need to be prepared, but this can be done by adding vinegar and food colouring to rice and allowing it to dry before you start the activity (Visit this Little Bins for Little Hands page to learn more). You can encourage your learner to request for "rice", or "pour" (mand 1M-7M). You can have the different colours in different tubs to be added to a bigger tray. Allowing your learner to specify the colour they want to expand requests into two or three word requests "red rice", or "pour blue rice", etc. (mand 8M). You can also include targets that involve labelling the colours or receptively identifying colours, for example, "What colour?", or "show me pink" (tact 10d; Listener responding 10b;receptively). This activity also allows for intraverbal fun fill-in around the rainbow song, "red and yellow and pink and …. " [green] (Intraverbal 6M).

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.

From: https://flic.kr/p/onbZ9L

TERMINOLOGY

Acceptance and Commitment Therapy (ACT): This is an approach to therapy and managing difficult emotions. Founded on Applied Behaviour Analysis and Relational Frame Theory (RFT), the principles focus on acceptance of difficult emotions, taking steps and engaging in behaviours that take you towards values, defusion of negative thoughts and being present. ACT has been demonstrated to promote good mental health, and help people manage addition. To learn more check out the blog post, What is Acceptance and Commitment Therapy (ACT).

STUDY TIPS

This months tip is to check out this selection of books written by the father of Behaviour Analysis, B. F. Skinner. Many people find this a great way to develop their understanding of the field; developing their understanding of the underpinnings of the science.

PEOPLE WHO INSPIRE US

This month we celebrate the career of Dr. Justin Leaf. He is an incredible Behaviour Analyst who has impacted the field with his research into improving social skills and improving long term outcomes for children and adolescents with Autism Spectrum Disorder. He has also written articles and spoken about Social Thinking curriculums, to discredit these as pseudoscience. He studied at University of Kansas where he received his masters in Applied Behavioral Science. He then went on to received his doctorate degree in Behavioral Psychology. He has published several articles in pee reviewed journals and speaks regularly at a variety of conferences and events. He holds a position with the Autism Partnership Foundation where he is the Director of Research. You can learn more about Justin by visitng his page on Autism Partnership.

PRODUCTS

Mission Cognition have a great E-Store for resources for you to buy, download and print. These are perfect for adding to your sessions and extending your activities.

Next month we're looking at *The Practical Functional Assessment developed by Greg Hanley* so be sure to subscribe so you receive the next exciting edition.

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