Busy Analytical Bee

NEWSLETTER January

Welcome to the January edition and Happy New Year to all my readers! In this edition we look at devices that are helping teach and support children with Autism important social skills. We also review the career of Patrick Friman, an activity using Mr. Potato Head and the side effects of reinforcement and punishment. Also check out the study tips, events and product wish list suggestion. Have a great month!

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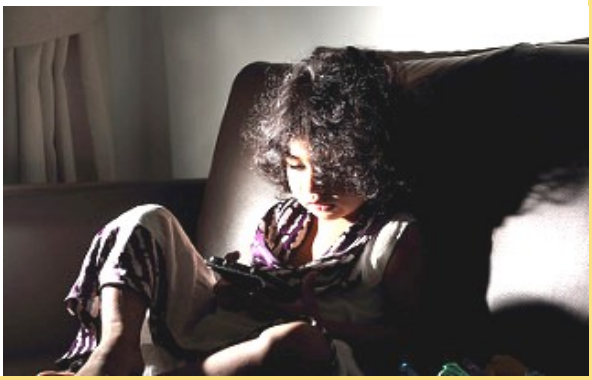
TECHNOLOGY FOR SOCIAL SKILLS FOR CHILDREN WITH AUTISM

Technology has advanced massively in the past century and most of this technology is common in every households. Adults and children rely on many forms of technology to ease the pressures of their busy schedules and as form of communication and entertainment. Technology also helps advancements in business, education, medicine and science to name a few. Specifically technology can help to teach children and adults with Autism (ASD) a variety of skills, including social skills. ASD is a spectrum disorder which, according to the Diagnostic and Statistical manual of Mental Disorders (DSM-IV-TR), shows deficits within three key areas of development, communication, imagination and social skills. A hallmark of ASD is impacted social skills and a lack of motivation or difficulty to socialise. Many children and adults also struggle with initiating and maintaining social interactions, understanding social rules and subtle cues, or interpreting language or gestures that may be confusing, for instance sarcasm.



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Many researchers have found ways to take advantage of technology to teach people with ASD important social skills. Shabani, et al (2002) replicated a study conducted by Taylor & Levin (1998) using a tactile prompt (vibration from a pager) to increase social initiations with children with ASD (ages, 6-9 years old). Training was completed with an adult, who modelled and provided edible reinforcement for responding, then this was transferred to peers. Shabani et al (2002) also investigated reducing the tactile prompt to access how effective fading would be with this procedure. They found all children's initiations increased, from 0% of intervals to an average of 77% for all participants. They reported that for two of the participants, fading was partially successful. Taylor et al (2004) investigated using a similar procedure with teenagers with ASD to seek help when lost. When a pager vibrated the teenagers would find an adult to help them return to their carer. This is an important life skill and the researchers found this to be an effective procedure. None of the participants looked for help when lost until after the intervention was introduced. This supports the use of a pager to support a variety of social skills. This procedure is desirable as it is discrete, although further research is required to expand this research to a wider variety of social skills and fading.

Video modelling has been shown effective with children with ASD to teach social skills (Nikopoulos & Keenan, 2004; Charlop & Milstein, 1989). Children with ASD demonstrate an increase or improvement in social skills following watching a video of children or adults models demonstrating these skills. Technology now allows us to bring videos to life, through virtual reality. This is becoming common within households as headsets are available with compatible games and apps on mobile phones. This offers a exciting opportunity for teaching social skills. Virtual reality will enable learners to fully immerse themselves into a social situation and practise skills. Parsons & Mitchell (2002) discuss the possibility of virtual reality (VR) being used to teach social skills to children and adults with ASD, as VR is

beginning to show it's potential for being beneficial to medicine and science. Parsons & Mitchell (2002) discuss that VR would be beneficial as children with ASD display deficits within Theory Of Mind (TOM; being able to see the world from another person's perspective) and their imaginative. Neurotypical children develop TOM through imaginative play and role playing, although children with ASD can have difficulties with this. VR would offer opportunities for children with ASD to engage in role play, which in turn could help their TOM, and in turn improve their social skills.

Teaching social skills to children with ASD can be difficult due to the complexities of social rules and interactions. The promising research using technology shows that children with ASD can be taught important skills that may be less intrusive. It can be difficult to prompt and teach a child whilst they are in the natural environment It is exciting that researchers can begin to develop interventions that include this technology and discovering how well these skills generalise into the natural environment. If you are interested in developing an intervention to teach social skills, you can speak to a BCBA or BCaBA for more information.

American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-IV-TR). 4th text revision edn. American Psychiatric Association, Washington, DC; 2000

Charlop, M. H., &Milstein, J. P. (1989). Teaching Autistic Children conversational speech using video modelling, Journal of Applied Behavior Analysis, 22(3), 275-285.

Nikopoulos, C. K., & Keenan, M. (2004). Effects of Video Modelling on Social Initiations b children with Autism, Journal of Applied Behaviour Analysis, 37(1), 93-96.

Parsons, S., & Mitchell, P. (2002). The potential of virtual reality in social sills training for people with Autistic Spectrum Disorders, *Journal of Intellectual Disability Research*, **46**(5), 430-443

From: https://flic.kr/p/T8XMaq

Shabani, D. B., Katz, R. C., Wilder, D. A., Beauchamp, K., Taylor, C. R., & Fischer, K. J. (2002). Increasing social initiations in children with Autism: Effects of a tactile prompt, *Journal of Applied Behavior Analysis*, **35**, 79-83.

Taylor, B. A., Hughes, C. E., Richard, E., Hoch, H., Rodrigquez-Coello, A. (2004). Teaching teenagers with Autism to seek assistance when lost, *Journal of Applied Behavior Analysis*, **37**, 79-82.

Taylor, B. A., & Levin, L. (1998). Teaching a student with Autism to make verbal initiations: Effects of a tactile prompt, *Journal of Applied Behavior Analysis*, **31**, 651-654.

PRODUCTS

This months wish list includes books authored by Jon Bailey regarding ethics. Jon Bailey is a incredible Behaviour Analyst who is well renown for his knowledge of ethical conduct. These books should be included in any Behaviour Analysts book collection.

STUDY TIPS

Exam Labs offers a free BCBA multiple choice exam for you to review. There are 80 questions and you can also leave comments or questions under each question to support your understanding.

EVENTS

Dr. Vincent Carbone is visiting London! On the 8th and 9th of March he will be speaking about "Skinner's Analysis of verbal behavior in ABA treatment programs for children with Autism". This will be at the Hilton Hotel, in London Gatwick. This costs £225 to attend, although if you pay before the 1st of January you get the early bird price of £200. To find out more and book your place go to his website.

Acorn ABA are holding a "Intermediate tutor training" course on the 18th and 19th of January in Birmingham. The cost is £135 per person and includes a lunch. Go to the website for more information.

You can study in the comfort of you home with Florida Institute of Technology (FIT). They have a wide range of courses (costs vary) to help you develop you understanding of the principles of Behaviour Analysis. Continuing Education (CE) Units available on many courses.

PEOPLE WHO INSPIRE US

This month we will celebrate the career of Patrick Friman. Patrick Friman has had a successful career applying Behaviour Analysis with children and teenagers. He is well known for his experience with toilet training, sleep and oppositional behaviours. He is most famous for his work in Boys Town, where he is the Director of Clinical Services. Boys Town is a charity that helps to support and improve the lives of young men who are at risk. Patrick Friman is also a Clinical lecturer within the Department of Paediatrics at the University of Nebraska. He has also worked previously at the University of Pennsylvania, John Hopkins, and the University of Kansas. Friman has released over 170 publications and also two book. Between 2005 and 2007, he was the editor of the Journal of Applied Behaviour Analysis.

NATURAL ENVIRONMENT TEACHING (NET) IDEA

Mr. Potato Head is a fantastic activity that offers your learner many wonderful learning opportunities. There are many varieties of Mr. Potato Head that may include characters from popular movies, or the classic version. Each version has many body parts and clothing items that can be assembled (IP*: 10M). This can be done as independent play (IP*: 7c, 8d) or a joint activity with adults or peers (SBSP†: 3a, 7a, 7d, 8c, 8M, 9b, 9f, 9M). This activity offers opportunities to contrive mands (requests) for each body part or clothing item (mand: 1-5M) and with help with the toy or for missing items (mand: 6M, 7f, 7M). This could also be a turn taking activity and your learner could mand (request) for you to take your turn (mand: 7b. SBSP†: 7a, 7d, 9b, 9c). This is also a good opportunity to generalise labelling of and receptive identification of body parts (receptive: 4c, tact: 7a). You can also work on clothing as tact, receptive or Intraverbal targets, for example "What's this called?" Learner "Hat" (tact: 6M, 7M) or "You wear shoes on your ….?" Learner "feet" (Intraverbal: 7a, 7b).

Preceding skills reference to the VB-MAPP Assessment tool:

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

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

*IP: Independent Play †SBSP: Social behavior and Social Play

TERMINOLOGY

Reinforcement is a consequence (something that immediately follows a behaviour, involving a stimulus being added or removed from the environment) which maintains or increases the future probability of a behaviour occurring. Punishment is a consequence which decreases the future probability of a behaviour occurring. There can be positive side effects to using reinforcement in behavioural interventions, but there are also negative side effects. The same is true of punishment.

Negative Side Effects of Reinforcement:

- Learner focuses on the person who delivers reinforcement or the reinforcement itself. May be looking at a token board to see when tokens are delivered, for instance, which then came directly impact learning.
- The frequency of other functional and appropriate behaviours may reduce.
- Learner may engage in challenging behaviours when the reinforcement is not delivered.

Negative Side Effects of Punishment:

- Learner does not learn a new, appropriate alternative behaviour (which is why all punishment interventions should have a reinforcement component.
- Learners may have an emotional response to punishment, for example crying or aggression
- Learner may avoid the person who delivers the punishment. The person in turn becomes punishing.
- Behavioural Contrast may be observed, where the behaviour increases in another environment (home vs. school).

It is important to consider these when developing behavioural interventions.

Next month we'll be looking at *Reinforcement Schedules*, so be sure to subscribe so you receive the next exciting edition.

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