Natural Environment Training: What to do while waiting for funding

Presented by: **B.E.S.T.**
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Goal of this workshop

- In this workshop participants will acquire the knowledge and skills to use NET to teach self-help, independence, language and social skills.

What is N.E.T.?

- Sundberg and Partington created a model called Natural Environment Training (NET) that has the goal of increasing a range of skills through naturally occurring as well as contrived situations.
- NET is also used to transfer newly acquired skills to a more natural setting. For example, a skill such as colors might be first taught at a table or on the floor using discrete trial training but will slowly be generalized to questions about the color of mommy's purse or the flowers in the backyard, as the opportunities would naturally arise.
- Skills that are not frequently used soon after being acquired tend to disappear, so NET also involves creating additional learning opportunities, to use/practice the skill

What is ABA?

- Applied Behavioural Analysis involves the breaking down of complex skills, into smaller components that are easier to teach.
- Applied behavioural analysis is taught in a structured manner and focuses on differential reinforcement.
- Simplistically put, this means that parents and/or therapists learn how to reinforce appropriate behaviour and redirect or ignore inappropriate behaviour.
- Systematic differential reinforcement is actually much more complex than most people understand

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ABA vs IBI

- ABA is not a specific curriculum. IBI typically involves a curriculum.
- ABA is a set of principles and practices grounded in empirical research. IBI employs ABA principles and practices.
- ABA is not a treatment just for children with Autism or disabilities. IBI is typically implemented for children with Autism.
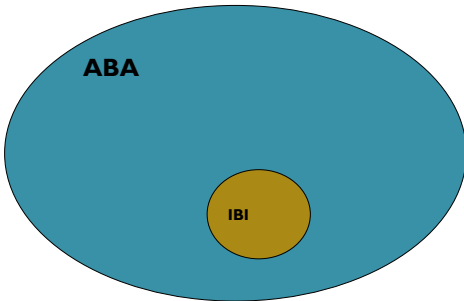- There are wide ranging applications in the world (e.g. organizational behaviour management)

All IBI is ABA but not all ABA is IBI

ABA

IBI

What is IBI?

- IBI (Intensive Behavioural Intervention) is ABA.
- ABA/IBI is a structured approach that is set up to help children with autism to break down barriers that may enable them to:
  ◦ Improve their social interaction skills
  ◦ Minimize the effect of possible developmental delays
  ◦ Overall predict a better outcome for the client

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NET in addition to IBI

- Even if a child is engaged in IBI, NET is still necessary in order to:
  ◦ 1. Generalize skills outside of the structured teaching session.
  ◦ 2. Learn skills that cannot be taught in IBI.
  ◦ 3. Learn in context such that the natural environmental cues take control of the behaviour/skill rather than a contrived and difficult to generalize cue.

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N.E.T. throughout the day

- BAAM Behavior Movies: ABA in Natural Settings
  www.baam.emich.edu/baamovies

A variety of short video clips showing behaviour analytic principles in practices in naturally occurring situations

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Breaking down the day

- ABA involves breaking larger more complex skills down into their component parts to make learning easier. To do this we need to start by breaking down the day.

Discriminative Stimuli

- SDs are cue in the environment that signal the availability of reinforcement.
- SD cue or prompt behaviour to occur having been paired with reinforcement in the past.

Four term contingency

- Establishing operation
- Discriminative stimulus
- Behaviour
- Reinforcement (both positive and negative)

Examples of Discrete Trials

Establishing Operation	Discriminative Stimulus	Behaviour	Consequence
Child is hungry	"What is it?"	Child labels car	Child gets popcorn (Positive Reinforcement)
Child is tired	"What is it?"	Child throws car.	Therapist stops The session (negative reinforcement)
Child is hungry	"What is it?"	Child says "dog."	Therapist corrects the response

Examples of Learning Opportunities

Establishing Operation	Discriminative Stimulus	Behaviour	Consequence
Child is hungry	"Parent holds Piece of popcorn And says, 'popcorn"	Child says, "popcorn."	Child gets popcorn (Positive Reinforcement)
Child want to play	Is told to pick up Toys, then play	Child screams.	Parent picks up toys While child plays (negative reinforcement)
Child is hungry	"Food on the table?"	Child takes food And walks away."	Parent brings child Back to the Table to eat

Large Group Activity

- Staring at waking and ending at going to bed, what does a day look like for a typical school aged child?
- Complete columns 1 and 2 in detail.

1. Time	2. Activity	3. Targeted Skills to Teach	4. Circle the highest level of prompt required throughout the activity

Breaking down the activities into their component parts
- What is a task analysis?

Small group activity
- Each group will have a different activity in which they list each component part of the activity.

Time	Activity	Targeted Skill to Teach	Circle the highest level of prompt required throughout the activity
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP

Environmental Manipulations

- Are there naturally available cues in the environment to prompt the initiation of the skill as well as each subsequent component?
- Let's create them!

Environmental Manipulations

- Are there adaptations to the physical materials that can be made?
- Let's make them!

Environmental Manipulations

- Are there frequent enough opportunities for the child to acquire the skill quickly?
- Let's create the opportunities!

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Environmental Manipulations

- Are there too many steps or transitions in the task?
- Let's reduce them!

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Environmental Manipulations

- Are there too many sensory interferences in the task?
- Let's reduce them!

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Environmental Manipulations

- Does the completion of the task inherently lead to reinforcement?
- Let's create reinforcement!

Almost ready to teach

- First, need to decide how many activities to target throughout the day.
- Options:
  - Focus on one particular area that is stressful for everyone.
  - Target the last component in each task (leads to R+)
  - Target a particular time of day that is conducive to the trainer's schedule
  - Others?

Least to Most Prompting

- Well intentioned parents and educators inadvertently help our children become prompt dependent by always telling them what to do.
- Constant instruction prevents the child from attending to and responding to the naturally occurring cue in the environment that should prompt the behaviour

Prompting cont'ed

- Least-to-most prompting is an effective teaching method which consists of fading the level of prompt needed by a student to complete a task. When using least-to-most prompting, the trainer starts with the lowest level of prompt starting by giving the child the opportunity to complete the task independently. Should the child not initiate the task after five seconds, the trainer begins to deliver prompts starting at the lowest level of prompt and increasing the level of prompt until the child completes the task. It is important to score the highest level of prompt needed, each time the task is completed, in order to monitor the child's progress towards less prompting and eventual independence.

Prompting cont'ed

- **I = Independent**
- The student demonstrated the skill without any instruction or prompting from the teacher.
- E.g.: Johnny hung up his coat upon reaching his locker.
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- **NV = Non-explicit verbal prompt**
- An NV prompt is a verbal hint that tells the student s/he needs to do something without explicitly telling him/she what to do. The NV prompt should draw the student's attention to the natural cue in the environment that should prompt him to respond. It is often posed as a question such as "Everyone is leaving. What do you need to do?" or "Mrs. Smith has arrived. What should you say?"
- E.G. Teacher looks at Johnny as he stands at his locker holding his coat and says, "There is your coat hook. What do you need to do next?"

Prompting cont'ed

- **G = Gestured or Modelled Prompt**
- The teacher may point to an item the student needs to take or a location in which the student is expected to go. The G prompt is always accompanied by the NV.
- E.G.: The teacher points to the hook where the coat is to be placed and says, "There is your coat hook. What do you need to do?"
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- **PP = Partial Physical Prompt**
- A PP prompt requires the teacher to physically assist the student in initiating the task but removing the prompt such that the student finishes the task on his/her own.
- E.G.: The teacher moves Johnny's hand, which is holding the coat, towards the hook, but releases it before the coat is on the hook such that Johnny completes the response by putting the coat on the hook. The PP prompt is also accompanied by the NV prompt.
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- **FP = Full Physical Prompt**
- An FP prompt involves full hand-over-hand assistance to complete the task while issuing an explicit verbal instruction.
- E.G.: The teacher places her hand on Johnny's, which is holding the coat, and helps him place it on the hook while saying, "Time to hang up your coat."
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Prompting cont'ed

- While this prompting sequence can take a lot of time in the initial stages of teaching it is very important not to skip any of the prompts. Jumping ahead will lead to prompt dependence in which the child will not initiate or complete a task unless prompted.
- Least-to-most prompting always starts with giving the child the opportunity to be independent before initiating the promoting sequence.
- If after 5 seconds, the child fails to respond, deliver the NV prompt. If the child still fails to respond after 5 seconds of the NV prompt, deliver the G prompt.
- Continue to increase the level of prompt until the child respond. Record on the CAPS© or other data collection system, the highest level of prompt needed.

Time	Activity	Targeted Skill to Teach	Circle the highest level of prompt required throughout the activity
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP
			I NVP EVP GP PP FP

Other Skills

- Large Group Exercise:
- Let's employ NET to:
  ◦ A social skill
  ◦ A language skill

Feedback & Questions

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Future Training Events

Please visit www.Kerrysplace.org for future parent and professional learning opportunities.

Also visit:

www.BEST4Autism.ca

June 1 & 8: Introduction to IBI and ABA.

June 15: Managing Sleep Disorders in Children with ASD

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