

Ways to Play: Simple ideas to create fun and memorable play activities and games for kids

Ontario Association for Behaviour Analysis (ONTABA)

Professional Webinar Series

Presented by: Harley Lang, MScM BCBA
July 2, 2020



Presentation Overview

Objectives:

- How do we teach pretend play skills to children with ASD?
- What can you do when kids run out of things to play?

Content:

- The Development and Importance of Play
- Teaching Play Skills to Children with Autism
- Teaching Other Skills through Play and Games
- Closing Comments



Housekeeping

Slides are available in the below handouts box or email:
aba@harleylang.com

Please put questions into the chat box.

I will answer questions in each section of this presentation.

Please consult with your BCBA re: individual considerations.



The Development and Importance of Play



play

[pley] [SHOW IPA](#) 

[SEE SYNONYMS FOR *play* ON THESAURUS.COM](#)

noun

- 1 a dramatic composition or piece; drama.
- 2 a dramatic performance, as on the stage.

[SEE MORE](#)

verb (used with object)

- 22 to act the part of (a person or character) in a dramatic performance; portray:
to play Lady Macbeth.
- 23 to perform (a drama, pantomime, etc.) on or as if on the stage.

[SEE MORE](#)

verb (used without object)

- 45 to exercise or employ oneself in diversion, amusement, or recreation.
- 46 to do something in sport that is not to be taken seriously.



Evidence-Based Practices in Behavioral Health
Series Editor: Nirbhay N. Singh

Marjorie H. Charlop
Russell Lang
Mandy Rispoli

Play and Social Skills for Children with Autism Spectrum Disorder

Useful resource re: the particulars of evidenced-based play interventions.

Let's review some relevant info from this book.



Behavioural Definitions of Play:

“Bijou (1975) described three main antecedents in children’s development that relates to play: (1) the anatomy and physiology of the child’s body, (2) relationship of the body to physical objects in the environment, and (3) relations with people in the social environment.”

Charlop, Lang, & Rispoli, 2018, p. 34.



Behavioural Definitions of Play:

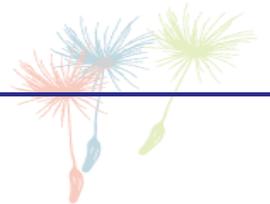
“Thus, play can be initially defined as a child interacting with toys or objects in an explorative, functional, and appropriate manner. Next, children begin to use their imagination in play by using toys, other objects, and eventually other people in creative ways. Finally, and importantly, many play activities are done socially with a partner or in a group.”

Charlop, Lang, & Rispoli, 2018, p. 34.



In other words, Play is:

Creative or unique interactions between your child and objects and/or other people, that brings about a desired outcome (e.g., silly sound, funny situations, imagined structures).



From: Charlop, Lang, & Rispoli (2018), ch. 1.

Table 1.1 Social and play skills observed in typical development

Birth–2 months	Tends to look toward faces
	Imitates some facial expressions
	Orientates or looks toward the sound of voices
2–4 months	Smiles and makes eye contact at short distances
	Plays with their own feet and hands by wiggling, rubbing, and grabbing
4–6 months	Imitates a wider range of facial expressions
	Recognizes familiar people at a distance
	Coos, babbles, and begins to imitate the intonation and pace of speech
	Seeks out affection (e.g., raises arms in an effort to be picked up and snuggled)
	Reaches for and grasps toys (e.g., batting at a hanging mobile)
	Can hold and shake toys (e.g., make noise with a rattle)
6–9 months	Distinguishes between familiar people and strangers (e.g., behaves differently with mom than unknown person)
	Plays with a variety of toys but has favorite toys
	Responds to voices by making sounds
	Uses gestures to communicate (e.g., reaches hand toward desired object while looking at the adult capable of reaching the object)
	Plays simple social games (e.g., peek-a-boo)
9–12 months	Responds to simple spoken requests (e.g., come here)
	Joint attention is well established
	Uses toys in a variety of ways
	Hands objects to people to initiate play (e.g., brings dad the blanket in an effort



9–12 months	Responds to simple spoken requests (e.g., come here)
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	Hands objects to people to initiate play (e.g., brings dad the blanket in an effort to start a round of peek-a-boo)
	Uses two or more toys together (e.g., banging blocks together)
12–18 months	Simple pretend play (e.g., doll drinks from empty cup)
	Scribbles with crayons
	Pulls toys on a string
2 years	Seeks out and plays near or around but not directly with other children (i.e., parallel play)
	Points to pictures in books
	Knows names of familiar people
	Plays simple make-believe games
	Stacks blocks and builds block structures
	Physical activity play involving items (e.g., kicks and throws balls)
3 years	Shows affection, concern, and empathy to friends (e.g., kiss another person's "boo-boo")
	Takes turns in games
	Back-and-forth conversation
	Completes simple non-interlocking puzzles
	Pretend play involves multiple toys (dolls and doll houses) and more complex themes
4–5 years	Prefers to play with other children
	Plays board or card games
	Plans games and activities ahead of time
	Concerned with whether friends like them



Table 1.2 Developmental sequence of play behavior

Approximate age range observed	Type of play	Definition and example topography
0–6+ months	Sensorimotor play	Exploring the environment by touching and mouthing objects. For example, putting hands or objects in mouth and rubbing hand on a bumpy wall
3–9+ months	Object exploration play	Seeing an object, reaching for that object, and then manually or orally manipulating the object
4–12+ months	Simple functional play	Engaging with objects (toys) in the manner intended, for example, pressing buttons on a light-up toy and shaking a rattle
8–12+ months	Relational or combination functional play	Making two or more objects interact or combine in some way, for example, stacking blocks
9–18+ months	Functional or pre-symbolic play	Using a toy in a way consistent with what the toy represents, for example, putting sand in the bucket of a toy dump truck
12–18+ months	Symbolic, imaginative, or pretend play	Using an object as if it were a different object (e.g., a book as a race car ramp); acting as though an object has an attribute it lacks (e.g., a toy oven imagined to be hot); or an object or person that is not present is imagined to be there or an event that did not occur to have occurred (e.g., a dragon is attacking the castle but no item represents the dragon)
18–24+ months	Dramatic or self-pretend play	Pretending to be someone or something else, for example, pretending to be a superhero or animal
24 months to 3 years	Parallel play	Playing alongside another child but not directly interacting with the other child
2.5 years to 4 years+	Associative play or early cooperative play	Seeking out other children to play with, has clear preferences for play partners but may still require adult support for more than brief play interactions
4 years+	Cooperative play	Playing with other children unassisted; able to identify friends and shows concern for whether or not other children like them

From: Charlop, Lang, & Rispoli (2018), ch. 1.



Play is an important skill that:

Supports component skills for other life skills, including:

- Communication.
- Motor coordination.

And introduces them to a context where they develop:

- Early social skills.
- Early problem solving skills.



Autism Spectrum Disorder

Diagnostic Criteria

299.00 (F84.0)

- A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive; see text):
1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.
 2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.
 3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.

How do we teach kids living with ASD the various play skills to improve their long-term social experience?



Teaching Play Skills to Children with Autism



12–18+ months	Symbolic, imaginative, or pretend play	Using an object as if it were a different object (e.g., a book as a race car ramp); acting as though an object has an attribute it lacks (e.g., a toy oven imagined to be hot); or an object or person that is not present is imagined to be there or an event that did not occur to have occurred (e.g., a dragon is attacking the castle but no item represents the dragon)
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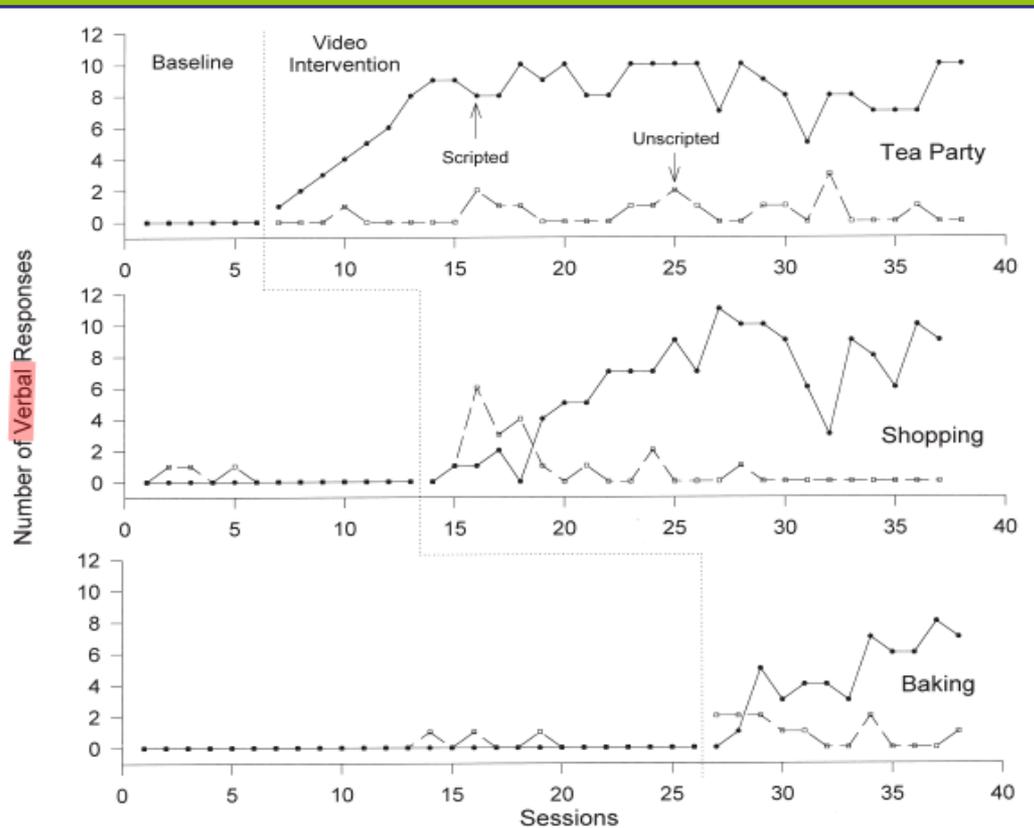


Figure 2. The number of scripted and unscripted verbal responses during the baseline and intervention sessions across all play sequences.

D'Ateno, Mangiapanello, & Taylor (2003)

1 child, 3 y 8 mo female.

Con't, shows vocalizations.



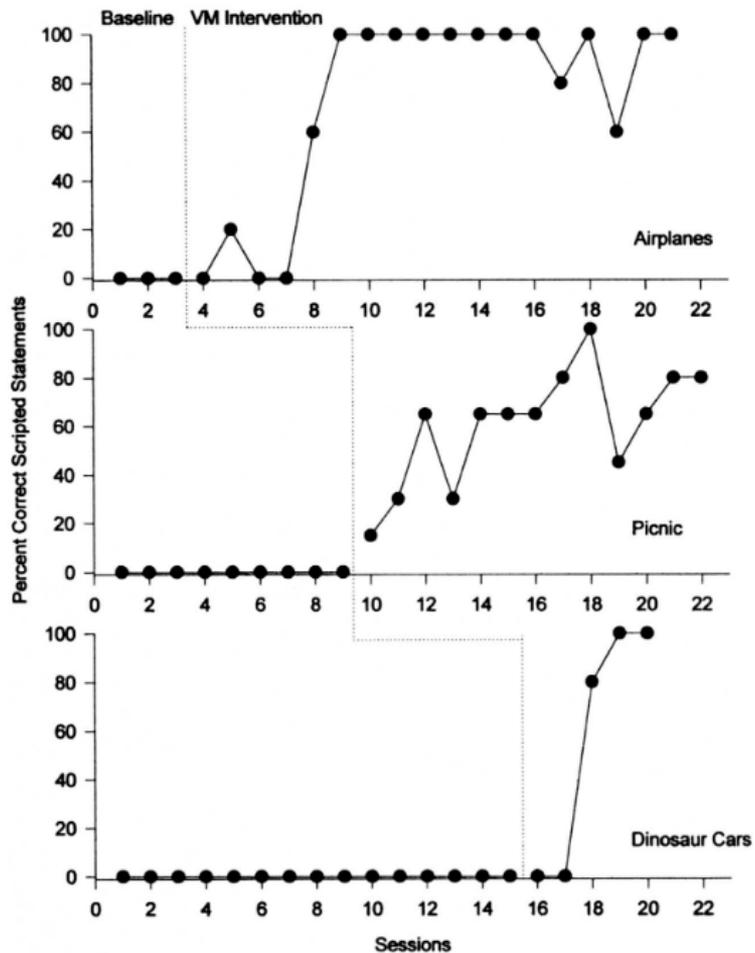


Fig. 1. The percentage of scripted comments stated during baseline and probe sessions for Experiment 1 during all three play activities.

Taylor, Levin, & Jasper (1999)

1 child, 6 y/o male.

Viewed video of parent and sibling talking while play.

VM INT: Parent showed video 3 times and practiced the AV with the student.

Data displays statements made while playing with their sibling.



How to Create Videos for Playsets:

Choose playsets that are already in your house.

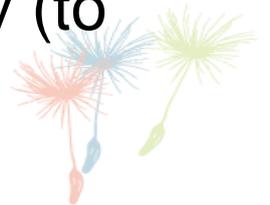
Create a list of 5-10 AVs (action-vocalization pairs).

- Consideration: is sequence important?
- Consideration: is variety important?

Create 3-5 videos, each 30s in length with 2-3 AVs

Consider showing the video immediately prior to play (to start).

- Consideration: will visual scripts be helpful?





Example Playsets



Can be purchased from ^^^

Example Playsets (Con't)



HL internship video / video model of play to be shown here.

Example Playset Video



Planning for Independent Pretend Play:

Other than play comments, limit verbal prompts if possible.

Prompt with your own models, gestures, and proximity.

Fade out your prompts as you observe success.

Plan to remove your presence to simulate true pretend play.



Box 3.2 Teaching Independent Activities

Teaching independent activities

1. Present a toy(s) to the child and give an instruction such as “Time to play by yourself.”
2. Gradually remove your presence from the play environment by implementing the following fading procedure:
 - (a) After instructing the child to play, scoot your chair back a foot or so.
 - (b) After instructing the child to play, stand up next to your chair.
 - (c) After instructing the child to play, stand by the door.
 - (d) After instructing the child to play, open the door and stand in the doorway.
 - (e) After instructing the child to play, open the door and leave the room. Leave the door open so that you can observe the child and he can see you.
 - (f) After instructing the child to play, leave the room, closing the door behind you. Observe the child through the one-way mirror.
3. Gradually increase the amount of time the child plays independently. Initially, trials may be 30 seconds long. Gradually increase trials to 45 s, then a minute, a minute and a half, and so on until the child is playing appropriately without your assistance for up to 5 min.

From: Charlop, Lang, & Rispoli (2018), ch. 3.

An example prompt-fading hierarchy for fading an adult’s presence from pretend play.



Teaching Other Skills Through Play and Games



Shared Experiences with Games and Learning

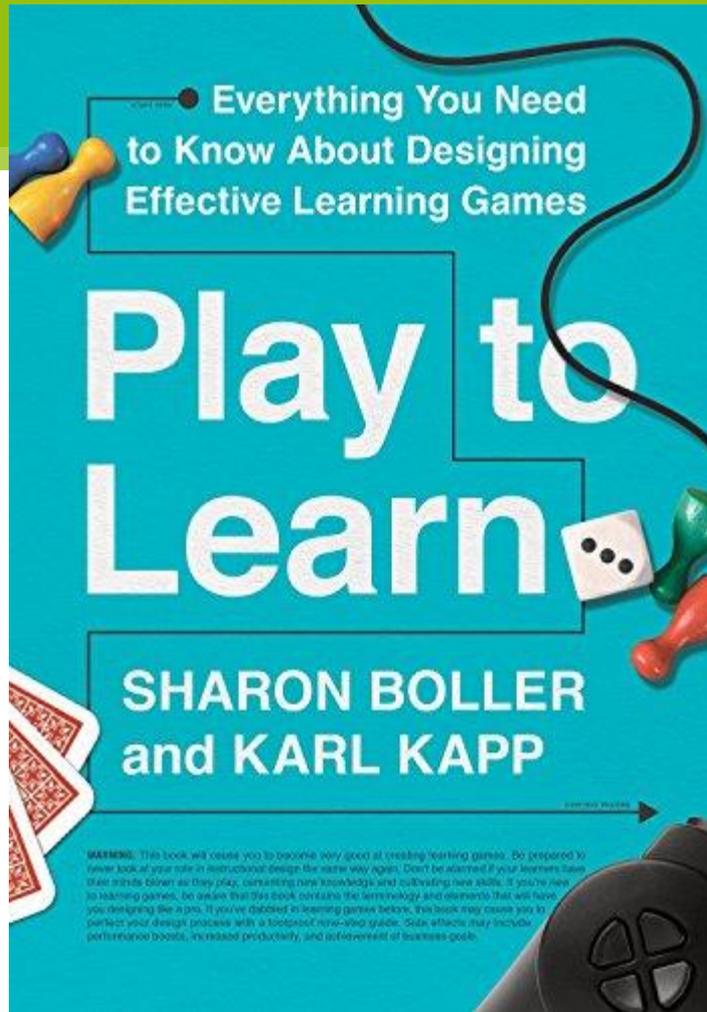
When kids run out of play ideas, we can hypothesize that:

- Reinforcers--things they value--are depleted.
- If necessity is the mother of invention, then ...
- Desire to do difficult tasks may be correspondingly low.

How can parents:

- Generate new play activities for all their kids?
- Create / embed teachable moments within these games?





Useful resource re: general approach for creating games with teachable moments.

Let's review some relevant info from this book.



Definition of a “Game”:

A game is an activity that has a *goal*, a *challenge* (or challenges), and *rules* that guide achievement of the goal; *interactivity* with either other players or the game environment (or both); and *feedback mechanisms* that give clear cues as to how well or poorly you are performing. It results in a *quantifiable outcome* (you win or lose, you hit the target, and so on) that usually generates an *emotional reaction* in players.

Boller & Kapp, 2017, ch. 1



Boller & Kapp, 2017, ch. 3:

“Where possible, winning is contingent on learning.”

Make the learning process reinforcing!

“Working together is far more inclusive than competition.”

Each game, everyone contacts reinforcement!



pro-ed Series on Autism Spectrum Disorders
Second Edition

Naturalistic and Incidental Teaching

Second Edition



Marjorie H. Charlop

Gamification is similar to embedded teaching, a topic discussed in this book

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Embedded teaching:
Rearranging the natural environment to include learning opportunities.



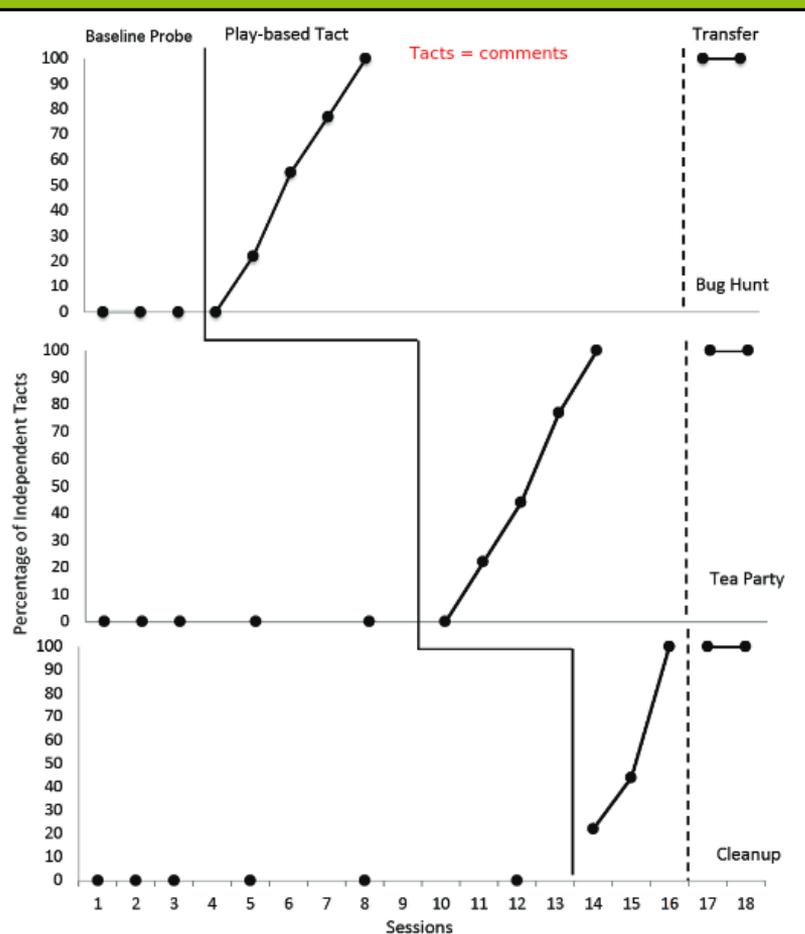


Figure 2. Percentage of independent responding during baseline, intervention, and transfer of training sessions across sets for Mayra.

Participant	Set A Theme/stimuli	Set B Theme/stimuli	Set C Theme/stimuli
Mayra	Bug Hunt: beetle vest grasshopper	Tea Party: toaster tea honey	Cleanup: detergent dustpan squeegee
Earl	Bug Hunt: beetle vest grasshopper	Tea Party: toaster tea honey	Cleanup: spray bottle dustpan squeegee
Luke	Food Truck: burger ketchup tray	Office: stapler ruler tape	Cleanup: broom sponge glove

Dueñas, Plavnick, & Maher, (2019)

3 kids, all 4-5 y/o.

a vocal model on
a Presented item and
provided 5s time delay.

Teaching Receptive Discriminations to Children With Autism: A Comparison of Traditional and Embedded Discrete Trial Teaching

Kaneen B. Geiger, James E. Carr, Linda A. LeBlanc, Nicole M. Hanney,
Amy S. Polick, and Megan R. Heinicke
Auburn University

ABSTRACT

Discrete trial teaching (DTT) procedures have proven effective in teaching language to children with autism. Discrete trial teaching uses a highly structured, fast-paced format of instruction that is typically conducted in a one-to-one situation at a desk or table with minimal distractions. We compared this traditional model of DTT to a version of DTT in which instruction was embedded within the context of a more naturalistic, activity-based environment. However, all of the other characteristics of DTT (e.g., pacing, tight stimulus control, targets selected by the teacher) were retained. Receptive discriminations were taught to 2 4-year-old boys, diagnosed with autism in traditional or embedded DTT. Results showed that for both boys, traditional and embedded DTT were equally effective and efficient. Additionally, measures were collected on participant affect and a concurrent-chains preference evaluation was used to determine which teaching procedure was preferred by the participants. The two procedures produced similar levels of positive and negative affect and were equally preferred by 1 participant while embedded DTT produced more positive affect and was more preferred by the other.

Keywords: autism, conditional discriminations, discrete-trial teaching, embedded instruction, listener behavior, receptive discriminations

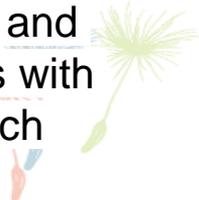


	Traditional DTT	Embedded DTT
Ben: Set 1	Llama Rhino Whale	Koala Platypus Cheetah
Ben: Set 2	Stingray Hippo Polar bear	Meerkat Anteater Gecko
Sawyer: Set 1	Vegetable Dairy Fruit	Fats Grains Protein
Sawyer: Set 2	Sweet Sour Bitter	Cheesy Salty Spicy

Geiger, Carr, LeBlanc, et al (2012)

Ben’s embedded DTT sessions involved the Jump to It game, which included a tarp with 9 rows of 3 (total 27) 15 cm diameter foam circles with one picture attached to each.

Sawyer’s embedded activity: Train activity, which included a small Thomas the Tank Engine Train and wooden interlocking train tracks with one picture card attached to each



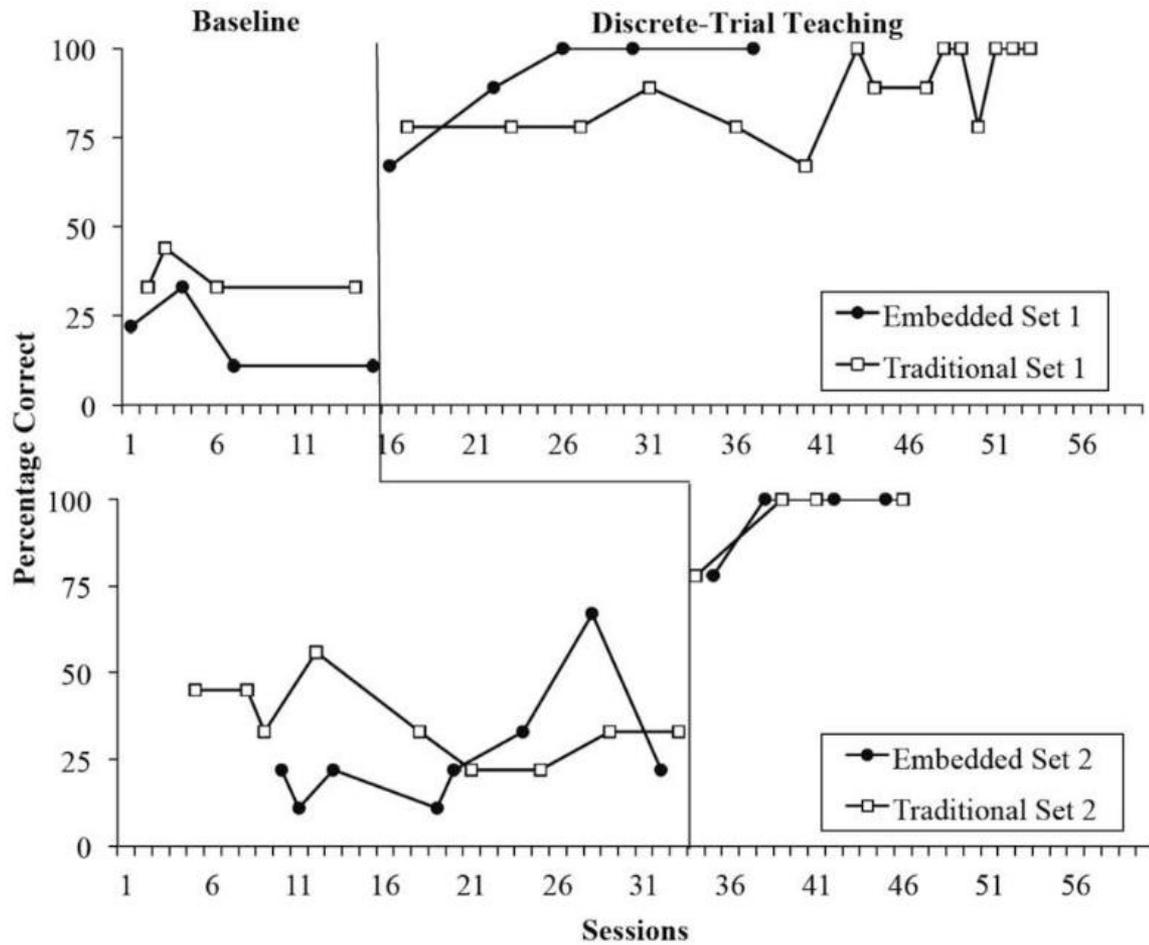


Figure 1. Percentage of correct responses during embedded and traditional DTT conditions across two comparisons for Ben.



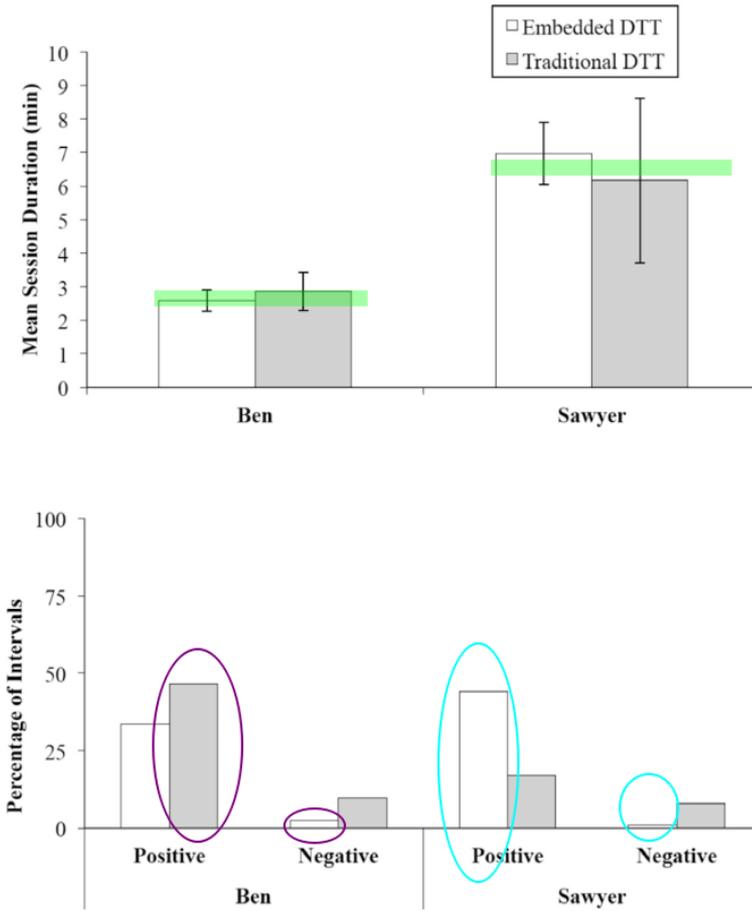
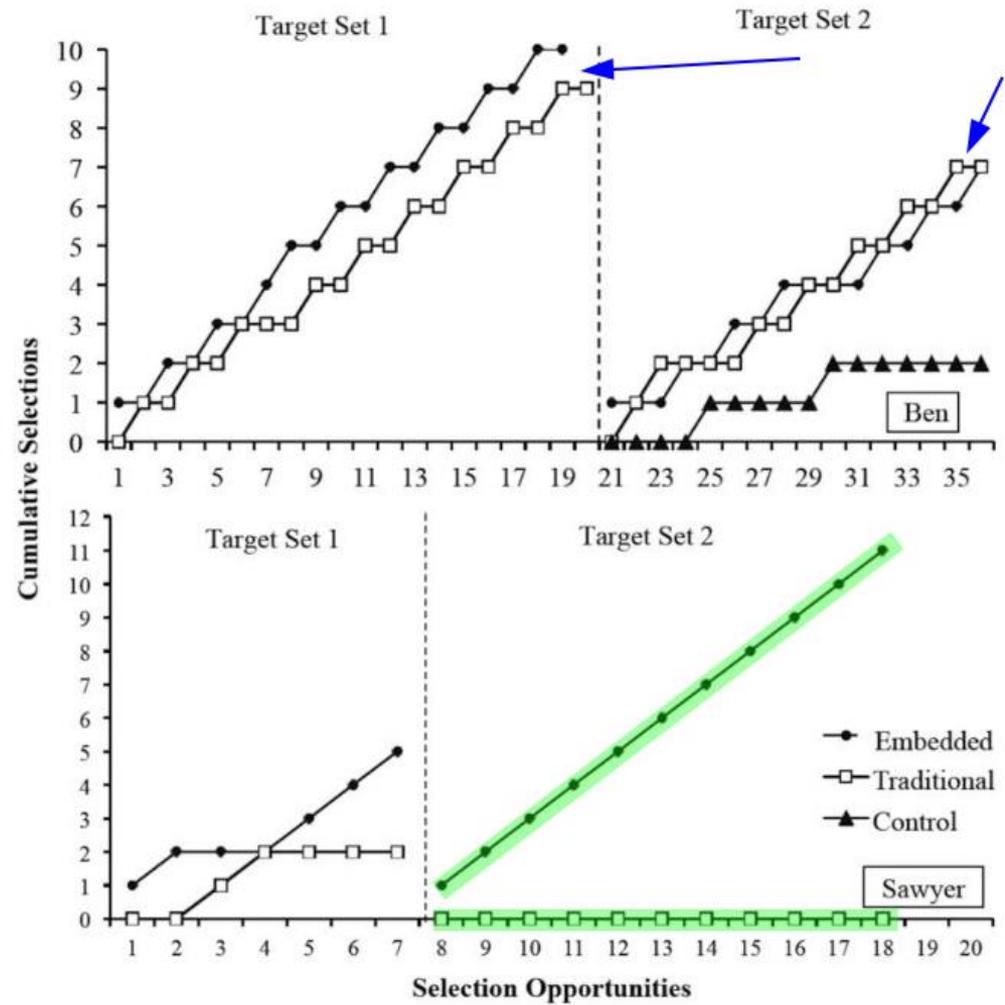


Figure 3. Mean session duration of embedded and traditional DTT for Ben and Sawyer (top panel). Note: error bars represent 1 standard deviation. Percentage of intervals of positive and negative affective behavior during each condition for Ben and Sawyer (bottom panel).





Geiger, Carr, LeBlanc, et al (2012) Summary of Findings:

- 1) Embedded teaching is just as quick as DTT.
- 1) Embedded teaching is associated with higher positive affect, and lower negative affect.
- 1) Some kids prefer embedded teaching over DTT.





Teaching Games! Game-based learning



The Play Book

- A short guide for implementing game-based learning.
- Includes 20 games for families to play around the house with on-hand materials.
- Suggestions for embedding teaching are included for parents, educators, and behaviour analysts.



<https://www.teaching.games/playbook>



HL demonstrates navigating to The Playbook and walks through how to access games and think about playing these games.

Example Playset Video



Closing Comments



“THERE is considerable attention in contemporary research, policy, and practice to the importance of children’s play in their development and learning; however, this attention is confounded in practice. There are ongoing tensions between ensuring time for children to play versus increased time focused on academic activities.”

Lifter et al., 2011



Wrapping Up:

In this presentation we reviewed why play is important.

Some strategies for how to teach play were shared, but these ideas are far from exhaustive.

Further, some strategies for how you can play were shared.

If you are interested in learning more about play, including ways that we can improve our own play skills to generate more reinforcing play, please send me an email.



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Web: www.harleylang.com

Info: www.teaching.games

Thank you ONTABA and Autism ONTARIO for the invitation to speak!!

